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1961/62
Pt.1

TIME TABLE

FIRST SEMESTER

1961-1962

UNIVERSITY OF ILLINOIS
Chicago Undergraduate Division
NAVY PIER

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AUG 16 1961
UNIVERSITY OF ILLINOIS

TABLE OF CONTENTS

Pre-registration Advisement Schedule 2
Instructions for Registration 3,4
Registration Schedule, First Semester 5
Schedule of Tuition and Fees 6
Calendar, First Semester 7
Chicago Undergraduate Division Calendar 8
Urbana Calendar 9
Final Examinations Schedule 10
How to Read This Timetable 11
Accountancy 12,13
Anthropology 13
Architecture 14,15
Art 15,16
Biological Sciences 17-20
Business Law 20
Chemistry 21-27
Civil Engineering 28
Dance 58
Economics 28-30
Education 30-31
Electrical Engineering 31
English 31-33
French 33,34
General Engineering 34-36
Geography 36,37
Geology 38,39
German 39,40
Health Education 58
History 40-42
Humanities 42
Hygiene 42,43
Management 43
Marketing 43
Mathematics 43-49
Mechanical Engineering 49,50
Military Science and Tactics 50
Music 51
Philosophy 51
Physical Education for Men 52-56
Physical Education for Women 57,58
Physical Sciences 59,60
Physics 60-62
Political Science 63
Psychology 63,64
Recreation 56
Rhetoric 64-72
Social Sciences 72,73
Sociology 73
Spanish 74
Speech 75-77
Student Counseling 77,78
Theoretical and Applied Mechanics 78,79

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IZ43It
1961/62
pt. 1

PRE-REGISTRATION ADVISEMENT SCHEDULE
FIRST SEMESTER 1961-62

PLACE: Second Floor, Lounge, East End

COMMERCE AND ENGINEERING

FORMER STUDENTS ONLY

A - E	Monday, September 11	1 p.m. - 4 p.m.
F - K	Tuesday, September 12	9 a.m. - 12 noon
L - Q	Tuesday, September 12	1 p.m. - 4 p.m.
R - Z	Wednesday, September 13	9 a.m. - 12 noon

LIBERAL ARTS AND SCIENCES

FORMER STUDENTS

Monday, September 11

A - BRZ..... 1 p.m.
BS - DON..... 2 p.m.
DOO - GRAM..... 3 p.m.

Tuesday, September 12

GRAN - JOH..... 9 a.m.
JOI - MAC..... 10 a.m.
MAD - NOR..... 11 a.m.
NOS - ROC..... 1 p.m.
ROD - SUL..... 2 p.m.
SUM - Z..... 3 p.m.

NEW STUDENTS

Wednesday, September 13

A - COK..... 9 a.m.
COL - GN..... 10 a.m.
GO - KLE..... 11 a.m.
KLF - NEK..... 1 p.m.
NEL - SMH..... 2 p.m.
SMI - Z..... 3 p.m.

PHYSICAL EDUCATION

No pre-advisement is scheduled for Physical Education majors.

INSTRUCTIONS FOR REGISTRATION

The following instructions are for registration under the IBM punch card plan. To make this plan successful it is essential that every student read and follow carefully all instructions. DO NOT BEND, FOLD, CLIP, BAND OR MUTILATE YOUR REGISTRATION CARDS. Use ink; print plainly.

If PRE-ADVISING, follow steps 1-4. When you have completed Step 4, return your cards to your College office or point designated. These cards will be returned to you at your scheduled registration time at which time you will resume with item 5.

1. Obtain from your college the following materials: Student's Copy of registration; a No. 1 Authorization Card, a No. 2 Dean's Program Card, a No. 3 Recorder's Information Card, and a No. 4 Veteran's Program Card, if applicable.

No. 1 AUTHORIZATION CARD

2. Refer to your No. 1 Authorization Card for your identification number (I.D. Number, upper left corner), hours earned, deficiencies, and college and curriculum. Read carefully the instructions which appear on this card for students.
SPECIAL NOTE: All your IBM cards must be identified by your I.D. number. This should appear on all your cards, but you should not write your name on any of them except the No. 4 Veteran's Program Card, No. 7 Fee Receipt Card, and your Student's copy of Registration.

3. Submit your No. 1 Authorization Card and No. 2 Dean's Program Card to the proper adviser.

No. 2 DEAN'S PROGRAM CARD

4. After the No. 2 card has been made out by your adviser and he has signed it, write your address and telephone number on the front of the No. 2 Dean's Program Card. Turn card over and complete the back in ink. PRINT PLAINLY.

5. Present your No. 1 Authorization Card and No. 2 Dean's Program card at the departmental tables. Obtain a No. 5 Class Card from the department representative for each course listed on your No. 2 Dean's Program Card. You will need only one card for each course. Lecture and/or laboratory cards in addition to quiz cards are not needed. BE SURE TO WRITE YOUR IDENTIFICATION NUMBER ON EACH CLASS CARD issued to you in the box provided (further indicated by arrows) but do not write your name on these cards.

No. 3 RECORDER'S INFORMATION CARD

6. Fill out the No. 3 Recorder's Information Card. Follow carefully instructions on the top and left margin of this card. PRINT PLAINLY.

INSTRUCTIONS FOR REGISTRATION (completed)

7. If a veteran, copy your approved program as it appears on the No. 2 Dean's Program Card on to the No. 4 Veteran's Program Card.

8. At this point you should have completed all of the information needed on the registration cards issued to you and be ready to have your program checked. Be sure your program on YOUR Student's Copy of Registration form agrees with the program on the No. 2 Dean's Program Card as it is approved in final form. Be sure to write in your room numbers on YOUR Student's Copy of Registration. This is the ONLY copy of your registration you will receive.

9. If your name does not agree with that printed on your No. 1 Authorization Card, please present this card to the Chief Clerk for correction BEFORE proceeding further with your registration.

10. Submit cards No. 1, 2, 3, (also 4, Veteran's Program Card, if applicable) and all No. 5 Class Cards in that order to one of the clerks at Station No. 2 and then proceed to Station No. 3 for class card check.

No. 6 FEE CARD and No. 7 IDENTIFICATION CARD

11. Submit all cards to the fee card clerks at Station 4 and obtain a No. 6 Fee Assessment Card and a No. 7 Identification Card. Write your name and address on the No. 7 Identification Card.

12. All veterans stop at Station 5.

13. If there is a question concerning your fees, if you are registered for 4 hours or less in the Summer Session or 8 hours or less in a regular semester, or if there is no No. 6 and 7 card for you at Station 4, go to Station 6.

14. Place cards No. 6 and 7 behind cards No. 1 through 5 and present all cards to a clerk at Station 7. Your cards should be presented in the following sequence: No. 1, 2, 3, 4, (if applicable) and all No. 5 cards, 6, and 7.

15. If you are registering in Military Science, report to Station 8.

16. You are now ready to pay your fees. Present your banded group of cards No. 1, 2, 3, and 5 cards, and No. 6, 7, and 4, (if applicable) to one of the cashiers. The banded group, No. 7 Identification Card, and No. 4 Veteran's Program Card will be returned to you when stamped by the cashier.

17. Submit all cards to a clerk at Station 12. The clerk at the station will return to you your Identification Card. This No. 7 Identification Card is very necessary and must be presented in order to participate in many University functions.

18. From this station proceed to the various stations for your insurance policy, University locker, and other University activities.

Report for classes on the first day at the hours shown on your Student's Copy of Registration form. KEEP THIS FORM WITH YOU AT ALL TIMES.

REGISTRATION SCHEDULE
First Semester, Fall 1961 - 62

PLACE: Second Floor, Lounge, East End

FORMER STUDENTS

Former students paying their tuition and fees after 5:00 p.m., Friday, September 15, 1961, will be assessed a late registration fee of $5.00.

A - C	Thursday, September 14	11:30 a.m.
D - H	Thursday, September 14	1:30 p.m.
I - N	Thursday, September 14	9:30 a.m.
O - R	Thursday, September 14	8:30 a.m.
S - Z	Thursday, September 14	10:30 a.m.

NEW STUDENTS

A - B	Friday, September 15	8:30 a.m.
C - D	Thursday, September 14	2:30 p.m.
E - G	Friday, September 15	9:30 a.m.
H - K	Thursday, September 14	3:30 p.m.
L - MIL	Friday, September 15	2:30 p.m.
MIM - P	Friday, September 15	1:30 p.m.
Q - SO	Friday, September 15	11:30 a.m.
SP - Z	Friday, September 15	10:30 a.m.

Students registering for less than 12 semester hours will register at 2:30 p.m., Friday, September 15.

All University offices will be closed on Saturday, September 16, 1961.

Late Registration will begin on Monday, September 18, 1961.

Instruction will begin on Monday, September 18, 1961.

SCHEDULE OF TUITION AND FEES

TUITION:

Residents of Illinois taking nine hours or more..... $ 75.00
(Eight hours or less pay tuition at the rate of $6.00 a semester hour).

Non-residents of Illinois taking nine hours or more..... $250.00
(Eight hours or less pay tuition at the rate of $20.00 a semester hour).

HOSPITAL AND MEDICAL SERVICE:

Students taking more than five hours..... $ 8.00
(Less than five hours, optional).

LABORATORY, LIBRARY, AND SUPPLY FEE:

Students taking more than eight hours..... $ 12.00
(Less than nine hours $6.00 each semester).

STUDENTS ACTIVITIES SERVICE FEE:

Students registered for more than five semester hours..... $ 8.00
(Students taking five hours or less pay no student activity fee).

ALL FEES ARE DUE ON THE DATE OF REGISTRATION

GENERAL DEPOSIT:

All new students, and all former students who were not registered at the Chicago Undergraduate Division during the second semester 1960-61 or the summer session 1961 must pay a General Deposit fee of..... $ 5.00

LATE REGISTRATION FEE:

A late registration fee will be charged to any former student who has not paid his tuition and fees on the last day of the regular registration period. The late registration fee of $5.00 will be assessed the first day of late registration, Monday, September 18, 1961.

Late registration fee..... $ 5.00

CHICAGO UNDERGRADUATE DIVISION
CALENDAR

First Semester, Fall, 1961

Tues., Sept. 5 - Wed., Sept. 13	Orientation Period.
Thurs., Sept. 14 - Fri., Sept. 15	Registration (Students registering for less than 12 hours report at 2:30 p.m., Friday, Sept. 15, for registration).
Mon., Sept. 18	Instruction Begins.
Tues., Sept. 19, 9:30 a.m.	Changes to adjust conflicts in program.
Thurs., Sept. 21, 1:00 p.m.	Earliest time at which program changes may be made for personal convenience.
Fri., Sept. 29, 4:00 p.m.	Latest date of withdrawal for rebate in full.
Sat., Oct. 21	Chicago Undergraduate Division opened, 1946.
Fri., Nov. 3, 4:00 p.m.	The completion of seven weeks of instruction for the purpose of allowing one-half credit for military withdrawals.
Fri., Nov. 10, 12:00 noon	Mid-semester grades are due.
Fri., Nov. 10, 4:00 p.m.	Latest date of withdrawal for rebate of one-half fees.
Wed., Nov. 22, 6:00 p.m.	Thanksgiving Vacation Begins.
Mon., Nov. 27, 8:00 a.m.	Thanksgiving Vacation Ends.
Sun., Dec. 3	Illinois Day (State admitted to Union, 1818) Not a holiday.
Fri., Dec. 8, 4:00 p.m.	The completion of twelve weeks of instruction for the purpose of allowing full credit for military withdrawals.
Thurs., Dec. 14	Students withdrawing on or after this date must petition for readmission.
Fri., Dec. 15, 6:00 p.m.	Christmas Vacation Begins.
Tues., Jan. 2, 8:00 a.m.	Christmas Vacation Ends.
Thurs., Jan. 18	Last day of instruction.
Fri., Jan. 19 - Fri., Jan. 26	Semester Examinations.

UNIVERSITY OF ILLINOIS
CHICAGO UNDERGRADUATE DIVISION

ACADEMIC CALENDAR 1961-62

First Semester (Fall 1961)

Sept. 5, Tues. - Sept. 13, Wed.	Orientation Period
Sept. 14, Thurs. - Sept. 15, Fri.	Registration
Sept. 18, Mon.	Instruction begins
Oct. 21, Sat.	Chicago Undergraduate Division opened 1946
Nov. 22, Wed., 6 p.m.	Thanksgiving Vacation begins
Nov. 27, Mon., 8 a.m.	Thanksgiving Vacation ends
Dec. 3, Sun.	Illinois Day (State admitted to the Union, 1818)
Dec. 15, Fri., 6 p.m.	Christmas Vacation begins
Jan. 2, Tues., 8 a.m.	Christmas Vacation ends
Jan. 19, Fri., - Jan. 26, Fri.	Semester Examinations

Second Semester (Spring 1962)

Feb. 1, Thurs., - Feb. 7, Wed.	Orientation Period
Feb. 8, Thurs., - Feb. 9, Fri.	Registration
Feb. 12, Mon.	Instruction begins
Mar. 2, Fri.	University Day (University opened 1868; not a holiday)
April 19, Thurs., 6 p.m.	Easter Vacation begins
April 25, Wed., 8 a.m.	Easter Vacation ends
May 11, Fri.	Honors Day
May 30, Wed.	Memorial Day (holiday)
May 31, Thurs. - June 7, Thurs.	Semester Examinations

Summer Session 1962

June 22, Fri.		Registration
June 25, Mon.		Instruction begins
July 4, Wed.		Independence Day (holiday)
Aug. 17, Fri.	Eight-Week	Summer Session Examinations
Sept. 3, Mon.		Labor Day (holiday)
Sept. 7, Fri.	Twelve-Week	Summer Session Examinations

UNIVERSITY OF ILLINOIS
URBANA

ACADEMIC CALENDAR 1961-62

First Semester (Fall 1961)

Sept. 5, Tues. - Sept. 8, Fri.	Entrance Examinations
Sept. 11, Mon. - Sept. 16, Sat.	Freshman Week and Registration
Sept. 18, Mon.	Instruction begins
Nov. 22, Wed., 1 p.m.	Thanksgiving Vacation begins
Nov. 27, Mon., 1 p.m.	Thanksgiving Vacation ends
Dec. 3, Sun.	Illinois Day (State admitted to the Union, 1818)
Dec. 20, Wed., 1 p.m.	Christmas Vacation begins
Jan. 3, Wed., 1 p.m.	Christmas Vacation ends
Jan. 17, Wed.	Study Day, classes dismissed
Jan. 18, Thurs. - Jan. 26, Fri.	Semester Examinations

Second Semester (Spring 1962)

Jan. 30, Tues. - Feb. 2, Fri.	Entrance Examinations
Feb. 5, Mon. - Feb. 7, Wed.	Registration
Feb. 8, Thurs.	Instruction begins
Mar. 2, Fri.	University Day (University opened, 1868)
April 14, Sat., 1 p.m.	Spring Vacation begins
April 23, Mon. 1 p.m.	Spring Vacation ends
May 4, Fri.	Honors Day (Classes dismissed at noon)
May 30, Wed.	Memorial Day (holiday)
May 30, Wed.	Study Day (Classes dismissed)
May 31, Thurs. - June 8, Fri.	Semester Examinations
June 16, Sat.	Commencement Exercises

Summer Session 1962

June 5, Tues. - June 8, Fri.		Entrance Examinations
June 18, Mon.	Eight-Week	Registration
June 19, Tues.		Instruction begins
June 23, Sat.	Twelve-Week	Registration
June 25, Mon.		Instruction begins
July 4, Wed.		Independence Day (holiday)
Aug. 10, Fri. - Aug. 11, Sat.	Eight-Week	Summer Session Examinations
Sept. 3, Mon.		Labor Day (holiday)
Sept. 7, Fri. - Sept. 8, Sat.	Twelve-Week	Final Examinations

FINAL EXAMINATIONS SCHEDULE, I 1961-62
January 19 through January 26, 1962

Except for combined section examinations, to be announced, all examinations will be given in accordance with the following program.

Classes Meeting at	Classes having at least ONE session on Wednesday will be examined at: 9 a.m. to 11 a.m.	Classes having NO session on Wednesday will be examined at: 12 noon to 2 p.m.	All classes meeting at 8, 2, or 4 will be examined at: 3 p.m. to 5 p.m.
8 a.m.	_____	_____	Friday, Jan. 26
9 a.m.	Thursday, Jan. 25	Thursday, Jan. 25	_____
10 a.m.	Friday, Jan. 26	Friday, Jan. 26	_____
11 a.m.	Friday, Jan. 19	Friday, Jan. 19	_____
12 noon	Monday, Jan. 22	Monday, Jan. 22	_____
1 p.m.	Tuesday, Jan. 23	Tuesday, Jan. 23	_____
2 p.m.	_____	_____	Wednesday, Jan. 24
3 p.m.	Wednesday, Jan. 24	Wednesday, Jan. 24	_____
4 p.m.	_____	_____	Thursday, Jan. 25

Combined Section examinations from 3 p.m. to 5 p.m. on:

Friday, January 19

Monday, January 22

Tuesday, January 23

HOW TO READ THIS TIMETABLE

LISTING OF COURSES

The arrangement of courses in this Time Table is alphabetical (See Table of Contents on page 1). The courses offered by each department are listed numerically. Following the title of each course is a statement of the requirements, if any, for admission to the course.

LEGEND FOR SECTION LETTERS*

Hour	MWF, MTWTF, TWTF	TT, MTT, TTF
8	A	L
9	B	M
10	C	N
11	D	P
12	E	Q
1	F	R
2	G	S
3	H	T
4	J	U
5	K	W

*Note: This does NOT apply to lecture and laboratory sections in Art, Architecture, Engineering Sciences, and Military Science and Tactics.

The information contained in the various columns under each course description is:

Column 1: Type of section--lecture, laboratory, quiz. (This column will not appear in all instances.)

Column 2: Section number. (See Legend above.)

Column 3: Day(s) of the week on which the section meets.

Column 4: Hour(s) of the day at which the section meets.

Column 5: Room(s) in which the section meets.

Column 6: Instructor(s) of the section.

ACCOUNTANCY

Accy. 101. Principles of Accounting. Credit 3 hours. Beginners' course. Simple transactions, general ledger accounts, books of original entry, closing process, trial balances, financial statements, accounting for negotiable instruments, controlling accounts, adjusting entries. Students with 95 or more credit hours receive only 2 hours credit.

B1	MWF	9	22	ANDREWS
B2	MWF	9	17	KABBES
B3	MWF	9	24	SCHNEIDER
C1	MWF	10	22	FOX
C2	MWF	10	23	SCHNEIDER
D1	MWF	11	19	KABBES
E1	MWF	12	24	OSSMAN
E2	MWF	12	20	LIPKIN
F1	MWF	1	21	FOX
F2	MWF	1	24	SCHNEIDER
G1	MWF	2	21	LIPKIN
G2	MWF	2	16	MALINOSKY
H1	MWF	3	23	LIPKIN
H2	MWF	3	16	FOX
M1	MTT	9	19	HEDISH
N10	TTF	10	20	ANDREWS
Q10	TT	12	19	HEDISH
	F	12	22	
R10	TT	1	20	HEDISH
	F	1	16	
T1	MTT	3	20	OSSMAN
U1	MTT	4	17	OSSMAN

Accy. 105. Accounting Procedure. Credit 3 hours. Relation of business documents to the accounts; fundamentals of partnership and corporation accounting, business forms and records; payroll accounting; single entry; financial statement analysis. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Accountancy 101.

C1	MWF	10	21	LARSON
E1	MWF	12	19	KABBES
F1	MWF	1	23	OSSMAN
M1	MTT	9	20	LARSON
P10	TTF	11	20	ANDREWS

Accy. 106. Elementary Cost Accounting. Credit 3 hours. Accounting for production management. Principles and methods of accounting for managerial control of costs of production. Prerequisite: One year of accountancy; sophomore standing.

D1	MWF	11	21	LIPKIN
G1	MWF	2	20	SCHNEIDER
N1	MTT	10	19	HEDISH
R10	TTF	1	19	MALINOSKY

Accy. 108. Intermediate Accounting. Credit 3 hours. Consideration at the intermediate level of accounts and transactions peculiar to the partnership and corporation types of organization and of modern basic concepts of accounting theory; interpretation of financial statements and analysis of the principal accounts represented therein. Prerequisite: One year of accountancy; sophomore standing.

F1	MWF	1	20	ANDREWS
G1	MWF	2	19	KABBES

ANTHROPOLOGY

Anthrop. 102. Introduction to Anthropology: The Origin of Man and Culture. Credit 4 hours. An introduction to and general survey of human origins and early man, physical anthropology, race and racism, linguistics, archaeology and the beginning of human civilization. Recommended though not required to be taken with Anthropology 103 as a survey of the field of anthropology. This course with Anthropology 103 satisfies the social science requirement in Liberal Arts and Sciences.

E1	MTWT	12	28	WARREN
H1	MTWT	3	28	WARREN
J1	MTWT	4	28	WARREN

Arch. 101. Introduction to Architecture. Credit 3 hours. Introduction to the building industry and the profession of architecture, exercises illustrating basic architectural forms and their organization. Prerequisite: Credit or registration in General Engineering 107.

LECT	C	W	10	251
LAB	C7	MTTF	8/10	241
LAB	A7	MTTF	10/12	241
LAB	F7	MTTF	3/5	241

Arch. 113. History of Ancient Architecture. Credit 2 hours. A description and analysis of the development of the architecture of the ancient East, Greece and Rome, related to the environmental and cultural setting. Prerequisite: Architecture 131 or sophomore standing.

LECT	N	TT	11	251

Arch. 131. Architectural Design. Credit 3 hours. Beginning study of architectural planning and designing. Fundamentals of sketching and presentation. Prerequisite: Sophomore standing, Arch. 101, credit in G.E. 108, and registration in Arch. 141.

LECT	R	W	2	251
LAB	A	MF	8/11	241
		W	9/11	241
LAB	B	TT	3/6	241
		W	3/5	241

Arch. 132. Architectural Design. Credit 3 hours. Continued study of the fundamentals of architectural design. Prerequisite: Architecture 131.

LEC	D	W	11	251
LAB	A	MF	8/11	242
		W	9/11	242
LAB	B	TT	3/6	242
		W	3/5	242

Arch. 141. Materials and Methods of Construction I. Credit 2 hours. Wood frame construction as used in houses; manufacture and performance characteristics of materials; farming systems; typical details; finishing materials. Prerequisite: Registration in Architecture 131, and credit in G.E. 108.

G	MF	2	251

Arch. 142. Materials and Methods of Construction II. Credit 2 hours. Nonfire resistance construction; manufacture and performance characteristics of materials; support systems; typical details; finishing materials. Lectures and drawings. Prerequisite: Architecture 141.

D	MF	11	251

Arch. 214. History of Medieval Architecture. Credit 3 hours. A description and analysis of the development of medieval architecture in Europe and the East related to the environmental and cultural setting. Prerequisite: Architecture 113 or consent of instructor.

F	MWF	1	251

Arch. 233. Architectural Design. Credit 3 hours. Continued study of architectural planning and designing; principles of plan, elevation, and section in small buildings. Prerequisite: Architecture 132. credit or registration in T.A.M. 150 or 171, and registration in Arch. 241.

A	MWF	8/11	242
B	MWF	3/6	242

Arch. 241. Materials and Methods of Construction III. Credit 2 hours. Semi-fireproof construction, manufacture and performance characteristics of materials; framing systems; typical details; finishing materials. Prerequisite: Architecture 142 and registration in Arch. 233.

R	TT	1	251

ART

Art 111. Survey of Art History. Credit 3 hours. Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies previous to the Italian Renaissance.

J1	MWF	4	251

Art 115. Art Appreciation. Credit 3 hours. An introduction to the factors inherent in architecture, sculpture, painting, and other arts. Primarily for non-art students.

B1	MWF	9	251

Art 117. Drawing I. Credit 3 hours. Theory and practice in the elements of drawing.

A	MWF	8/11	91
B	MWF	11/2	91

Art 118. Drawing II. Credit 2 hours. Continuation of Art 117. Prerequisite: Art 117.

A	TT	11/2	83
B	TT	3/6	83

Art 119. Design. Credit 2 hours. Theory and practice in the elements of design.

A	TT	11/2	244
B	TT	3/6	244

Art 120. Design. Credit 3 hours. Continuation of Art 119. Prerequisite: Art 119.

A	MWF	9/12	244
B	MWF	3/6	244

133. **Design Workshop.** Fundamentals of three-dimensional design. Primarily for students in the industrial design curriculum. I, II; 2. Prerequisite: Art 118 and 120.

A	TT	8/11	244

151. **Sculpture.** Anatomical and ornamental forms; plaster molds and models; wood and stone sculpture. I, II; 2. Prerequisite: Art 118 and 120.

A	MWF	12/2	244

Art 181. **Freehand Drawing. Credit 2 hours.** Simple groups of block form, still life, and casts in pencil and charcoal. Primarily for students in architecture.

B6	MWF	8/10	83
A6	MWF	10/12	83
G6	MWF	12/2	83
G7	MWF	2/4	83
C6	MWF	4/6	83
F6	MWF	11/1	84
E7	MWF	2/4	84
D6	TT	11/2	84

Art 182. **Freehand Drawing. Credit 2 hours.** Continuation of Art 181. Simple groups for block form, still life, and casts in pencil and charcoal. Primarily for students in architecture. Prerequisite: Art 181.

C7	TT	11/2	91
B7	TT	3/6	91
F7	MF	8/11	84

Art 183. **Freehand Drawing. Credit 2 hours.** Charcoal drawing from the cast; water color. Primarily for students in architecture. Prerequisite: Art 182.

A	TT	8/11	91
B	MF	3/6	84

Art 184. **Freehand Drawing. Credit 2 hours.** Continuation of Art 183. Charcoal drawing from the cast; water color. Primarily for students in architecture. Prerequisite: Art 183.

A	TT	8/11	83
B	MF	3/6	91

Art 281. **Freehand Drawing. Credit 2 hours.** Arrangement of form and color, rhythm and sequence, harmony, and contrast; charcoal, pen, pencil, and water color drawing from cast and still life; outdoor sketching. Primarily for students in architecture. Prerequisite: Art 184.

A	TT	8/11	84
B	TT	3/6	84

Biology 101. Fundamentals of Biology. Credit 4 hours. This course is designed to give a fundamental understanding of plant and animal life and their reproduction. It is not a survey of the plant and animal kingdoms, but is rather a scientific examination of the manner and means whereby plants and animals live and reproduce their kind. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Credit will not be given for both Biol. 101 and D.G.S. 131.

Lecture and laboratory sections in this course are coordinate. The laboratory section must be chosen from the group listed directly under the particular lecture section selected.

LEC	B	MW	9	213	SPIRAKIS
LAB	1	TT	8/10	43	PRESLEY
LAB	2	TT	10/12	43	
LAB	3	TT	12/2	43	DEMBSKI
LAB	4	TT	3/5	43	NEWELL
LAB	5	M	2/4	48	
		F	2/4	43	
LAB	6	WF	12/2	48	CLAAR
LEC	R	TT	1	213	LITTLE
LAB	7	TT	10/12	48	CLAAR
LAB	8	M	10/12	48	
		F	10/12	43	
LAB	9	MW	12/2	41	TAXEY
LAB	10	MF	4/6	48	PERELMUTER
LAB	11	WF	8/10	43	PRESLEY
LAB	12	M	12/2	45	DEMBSKI
		F	12/2	41	

LEC	C	MW	10	213	GLASSMAN
LAB	13	MW	2/4	43	BOND
LAB	14	MW	4/6	43	BOND
LAB	15	MW	12/2	43	ROUFFA
LAB	16	MF	4/6	41	
LAB	17	TT	8/10	45	BERGER
LAB	18	TT	3/5	41	CLAAR
LEC	Q	TT	12	213	PRESLEY
LAB	19	MW	10/12	43	TAXEY
LAB	20	MW	8/10	41	BERGER
LAB	21	M	8/10	43	TAXEY
		F	8/10	48	
LAB	22	TT	3/5	48	LITTLE
LAB	23	MW	8/10	48	GLASSMAN
LAB	24	MW	2/4	41	BERGER
LEC	P	TT	11	213	BOND
LAB	25	TT	12/2	48	CLAAR
LAB	26	WF	2/4	48	CLAAR
LAB	27	TT	12/2	41	BOND
LAB	28	M	2/4	45	SARKISSIAN
		F	2/4	41	
LAB	29	M	10/12	45	SARKISSIAN
		F	10/12	41	
LAB	30	M	8/10	45	SARKISSIAN
		F	8/10	41	
LAB	31	M	4/6	45	DEMBSKI
		W	4/6	41	

Biology 102. Fundamentals of Biology, Continued. Credit 4 hours. Application of biological principles to the living world. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biol. 101. Credit will not be given for both Biol. 102 and D.G.S. 132.

LEC	P	TT	11	205	APPLEGATE
LAB	44	WF	8/10	45	NEWELL
LAB	45	TT	12/2	45	NEWELL
LAB	46	WF	10/12	45	NEWELL
LAB	47	WF	12/2	45	APPLEGATE
LAB	48	WF	2/4	45	APPLEGATE
LAB	49	TT	3/5	45	APPLEGATE

Biology 111. General Botany. Credit 4 hours. The basic principles of plant structure, growth, physiology, reproduction, evolution and distribution, with special emphasis upon the role of the plant kingdom in the cycles of nature and human life. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Placement or consent of the instructor. Credit will not be given for Biol. 111 in addition to Biol. 101 or D.G.S. 131.

LEC	N	TT	10	217	GLASSMAN
LAB	50	TT	8/10	48	GLASSMAN
LAB	51	WF	10/12	48	PRESLEY

Biology 120. The Plant Kingdom. Credit 4 hours. An introductory study of the life histories of plants representative of algae, fungi, ferns, and seed plants. Prerequisite: Biology 111 or 102, or Biology 101, with a grade of "B" or higher.

LEC	M	TT	9	217	ROUFFA
LAB	54	TT	10/12	45	ROUFFA

Biology 121. Microbiology. Credit 4 hours. A study of microorganisms and their role in the system of nature. Among the microorganisms are included the viruses and the microscopic multicellular plants and animals, as well as the protozoa and bacteria. Primary emphasis will be placed upon the bacteria. The systematic evolutionary, physiological and ecological relationships of these organisms with both plant and animal worlds will be considered. Lectures and laboratory. Prerequisite: Biology 102 or consent of instructor.

LEC	L	TT	8	227	MADISON
LAB	60	MW	10/12	41	BERGER

Biology 131. General Zoology. Credit 4 hours. A survey of the animal kingdom. The structures, functions, life history, adaptations, classification and evolutionary relationships of animals. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biology 111.

LEC	E	WF	12	227	SHOMAY
LAB	70	WF	10/12	46	SANGSTER

Biology 132. Comparative Vertebrate Anatomy. Credit 5 hours. Classification and comparative anatomy of vertebrates, including functions of their organs and organ systems. Lectures and laboratory. Prerequisite: Biology 102 or 131, or Biology 101 with a grade of "B" or higher.

LEC	C	MWF	10	217	SHOMAY
LAB	72	MWF	8/10	46	SHOMAY
LAB	73	TT	8/11	46	TAXEY
LAB	74	TT	11/2	46	SARKISSIAN

Biology 141. Vertebrate Physiology. Credit 4 hours. The course is designed to furnish an understanding of the basic physiological activities of the vertebrate organism. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biology 102; or Biology 101 with a grade of "B" or higher.

LEC	L	TT	8	37	SPIRAKIS
LAB	80	TH	9/12	41	SPIRAKIS
QUIZ	80	TU	9	41	SPIRAKIS

Biology 333. Vertebrate Embryology. Credit 5 hours. The development of the vertebrate body and its organs. Lectures and laboratory. Prerequisite: Biology 132, junior standing.

LEC	F	MWF	1	217	SANGSTER
LAB	78	MWF	2/4	46	DEMBSKI
LAB	79	TT	3/6	46	PERELMUTER

Biology 351. Genetics and Evolution. Credit 3 hours. Analysis of the theories of evolution, the mechanism of evolutionary changes, and the principles of heredity. Prerequisite: One year of biological science and junior standing.

LEC	M	MTT	9	227	MADISON

BUSINESS LAW

Business Law 100. Basic Principles of Business Law. Credit 3 hours. Basic principles of business law, covering the subjects of contracts, sales, negotiable instruments and agency. Credit toward graduation will not be given for Business Law 201 or 261 in addition to Business Law 100. Prerequisite: Accountancy 105; Economics 102; 45 credit hours.

D1	MWF	11	24	FOX

Chem. 101. General Chemistry. Credit 4 hours. For students who have no entrance credit in high school chemistry, or whose preparation is inadequate for Chemistry 102. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: One unit of entrance credit in physics, or 2½ units of entrance credit in mathematics, or credit in Mathematics 103 or 112.

Lecture and laboratory sections in this course are coordinate. The laboratory section must be chosen from the group listed directly under the particular lecture section selected.

LEC	N	TT	10	205	
LAB	1	TT	8/10	53	HEDBERG
QUIZ	1	MW	8	75	HEDBERG
LAB	2	WF	10/12	53	HEDBERG
QUIZ	2	TT	11	76	HEDBERG
LAB	3	WF	1/3	53	HEDBERG
QUIZ	3	TT	12	80	HEDBERG
LAB	4	WF	2/4	53	
QUIZ	4	TT	4	80	
LAB	5	TT	11/1	53	
QUIZ	5	WF	10	80	
LEC	H	WF	3	213	STEINER
LAB	6	TT	8/10	53	JOHNSON
QUIZ	6	TT	3	76	JOHNSON
LAB	7	TT	10/12	53	STEINER
QUIZ	7	WF	10	76	STEINER
LAB	8	WF	12/2	53	STEINER
QUIZ	8	TT	1	76	STEINER
LAB	9	TT	3/5	53	HERZOG
QUIZ	9	WF	4	75	HERZOG
LAB	10	WF	1/3	53	PARE
QUIZ	10	MW	11	80	PARE

Chem. 102. General Chemistry. Credit 3 hours. For students who have had one year of high school chemistry, and whose preparation is adequate as indicated by placement examination. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: One unit of entrance credit in chemistry or equivalent.

Lecture and laboratory sections in this course are coordinate. The laboratory section must be chosen from the group listed directly under the particular lecture section selected.

Lecture M and Lab-Quiz sections 20-27 inclusive open to ENGINEERS only.

LEC	C	WF	10	205	MUELLER
LAB	11	TU	8/10	53	MUELLER
QUIZ	11	WF	8	74	MUELLER
LAB	12	W	12/2	50	MUELLER
QUIZ	12	TT	10	75	MUELLER
LAB	13	F	1/3	53	MUELLER
QUIZ	13	TT	12	76	MUELLER
LAB	14	M	10/12	53	SEABRIGHT
QUIZ	14	W	11	76	SEABRIGHT
		F	11	80	
LAB	15	M	12/2	53	PARE
QUIZ	15	TT	10	80	PARE
LAB	16	M	2/4	53	ALSCHULER
QUIZ	16	WF	2	80	ALSCHULER
LAB	17	M	8/10	53	FARAG
QUIZ	17	TT	9	76	FARAG
LAB	18	TU	10/12	53	GOTTLIEB/BACHRACH
QUIZ	18	WF	12	80	GOTTLIEB
LAB	19	TH	12/2	53	MILLER
QUIZ	19	WF	12	76	MILLER

LEC	M	TT	9	213	JONES
LAB	20	TH	12/2	50	JONES
QUIZ	20	MW	3	74	JONES
LAB	21	W	9/11	50	JONES
QUIZ	21	MF	12	74	JONES
LAB	22	F	1/3	50	JONES
QUIZ	22	MW	2	74	JONES
LAB	23	M	9/11	50	COWIN
QUIZ	23	WF	9	80	COWIN
LAB	24	W	10/12	53	HERZOG
QUIZ	24	TT	10	76	HERZOG
LAB	25	W	2/4	50	MANSFIELD/KLAAS
QUIZ	25	TT	3	75	MANSFIELD
LAB	26	TU	11/1	50	JOHNSON
QUIZ	26	MW	12	75	JOHNSON
LAB	27	TH	10/12	50	LOTHIAN
QUIZ	27	WF	1	74	LOTHIAN

Chem. 103. General Chemistry. Credit 4 hours. For engineering students who have had no chemistry or whose preparation is inadequate for Chemistry 102. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: One unit of entrance credit in physics, or 2½ units of entrance credit in mathematics, or credit in Mathematics 103 or 112.

LEC	E	WF	12	213	BACHRACH
LAB	28	MW	8/10	50	SACKHEIM
QUIZ	28	TT	8	75	SACKHEIM
LAB	29	TT	9/11	50	SACKHEIM
QUIZ	29	WF	10	74	SACKHEIM
LAB	30	WF	10/12	50	CARBONARO
QUIZ	30	TT	11	74	CARBONARO
LAB	31	TT	11/1	50	COWIN
QUIZ	31	MW	3	76	COWIN

LAB	32	WF	8/10	50	FARAG
QUIZ	32	TT	8	74	FARAG
LAB	33	MW	1/3	50	CARBONARO
QUIZ	33	MF	4	74	CARBONARO
LAB	34	TT	3/5	50	CARBONARO
QUIZ	34	WF	3	80	CARBONARO

LEC	T	TT	3	213	KLAAS
LAB	35	TT	10/12	50	ALSCHULER
QUIZ	35	MF	10	75	ALSCHULER
LAB	36	WF	4/6	50	POTEMPA
QUIZ	36	WF	3	75	POTEMPA
LAB	37	TT	12/2	50	KLAAS
QUIZ	37	MW	1	75	KLAAS
LAB	38	WF	2/4	50	
QUIZ	38	WF	1	76	
LAB	39	MF	11/1	50	SACKHEIM
QUIZ	39	TT	12	74	SACKHEIM
LAB	40	WF	9/11	50	GAINES
QUIZ	40	TT	8	76	GAINES

Chem. 104. Chemistry of the Metallic Elements. Credit 4 hours. Limited to students in engineering curricula. Credit in Chemistry 104 will not be granted to students who have received credit in Chemistry 105, 106, 108 or 109. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102 or 103.

LEC	Q	TT	12	217	SCHRAGE
LAB	41	MW	9/11	50	KLAAS
QUIZ	41	TT	10	74	KLAAS
LAB	42	TT	9/11	50	PERRY
QUIZ	42	MW	9	76	PERRY
LAB	43	WF	12/2	50	PERRY
QUIZ	43	TT	1	75	PERRY

LAB	44	MW	2/4	50	PERRY
QUIZ	44	MF	11	76	PERRY
LAB	45	TT	10/12	50	SEABRIGHT
QUIZ	45	TT	9	80	SEABRIGHT

Chem. 105. Inorganic Chemistry and Qualitative Analysis. Credit 5 hours. For students who are not eligible for Chemistry 104 or 106. Credit in Chemistry 105 will not be granted to students who have received credit in Chemistry 104 or 106. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102 or 103.

LEC	R	TT	1	217	HUNT
LAB	51	MWF	8/10	53	PARE
QUIZ	51	TT	8	80	PARE
LAB	52	MWF	10/12	53	HUNT
QUIZ	52	TT	11	75	HUNT
LAB	53	MWF	1/3	53	HUNT/SCHRAGE
QUIZ	53	TT	3	74	HUNT
LAB	54	MWF	12/2	53	HERZOG
QUIZ	54	TT	11	80	HERZOG
LAB	55	MWF	2/4	53	SEABRIGHT
QUIZ	55	W	9	75	SEABRIGHT
		F	9	76	

Chem. 106. Inorganic Chemistry. Credit 5 hours. Metallic elements. For students in curricula in chemistry, chemical engineering, and chemistry majors who are not premedical students. Credit in Chemistry 106 will not be granted to students who have received credit in Chemistry 104, 105, 108 or 109. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102 or 103.

LEC	T	TT	3	217	RIETZ
LAB	61	WF	3/6	53	RIETZ
QUIZ	61	TT	4	74	RIETZ
LAB	62	MWF	11/1	53	ALSCHULER
QUIZ	62	TT	12	75	ALSCHULER

Chem. 107. General Chemistry. Credit 5 hours. For students in curricula in chemistry or chemical engineering. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Excellent high school background in chemistry as shown by a placement examination.

LEC	H	WF	3	217	WELDON
LAB	66	TT	10/12	53	WELDON
QUIZ	66	MWF	11	75	WELDON
LAB	67	TT	3/5	53	WELDON/STEINER
QUIZ	67	MTT	1	74	WELDON
LAB	68	TT	8/10	53	LOTHIAN
QUIZ	68	MWF	8	76	LOTHIAN
LAB	69	MW	1/3	53	DELFS
QUIZ	69	MTT	3	80	DELFS

Chem. 109. General and Inorganic Chemistry. Credit 5 hours. A course in general chemistry and the chemistry of the elements and inorganic compounds, completing in one semester the work usually taken in two. Limited to students in the engineering and physics curricula. Not open to students who have college credit in chemistry. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Open only to students in the top quarter of their graduating class who qualify on the Chemistry Placement Test and are placed in Mathematics 112 or above.

LEC	F	MWF	1	213	HUITEMA
LAB	71	W	9/12	50	HUITEMA
QUIZ	71	MF	9	75	HUITEMA
LAB	72	TU	11/2	50	HUITEMA
QUIZ	72	MF	11	74	HUITEMA
LAB	73	TH	9/12	50	GAINES
QUIZ	73	WF	8	80	GAINES
LAB	74	F	2/5	50	DELFS/GAINES
QUIZ	74	TT	1	80	DELFS

Chem. 110. Qualitative Analysis. Credit 5 hours. Qualitative analysis of metals and inorganic compounds. Open to all students; required of students who major in chemistry or chemical engineering and those registered in the curriculum in chemistry except students who qualify for Chemistry 107 and 108. Prerequisite: Chemistry 106 or equivalent.

LEC	Q	TT	12	65	MANSFIELD
LAB	76	M	10/12	53	MANSFIELD
		WF	9/12	53	
QUIZ	76	TT	9	74	MANSFIELD

Chem. 122. Elementary Quantitative Analysis. Credit 5 hours. Gravimetric and volumetric analysis, stoichiometrical relations, practical application. Prerequisite: Chemistry 105 or equivalent.

LEC	N	TT	10	213	BABLER
LAB	81	MWF	9/12	54	LOTHIAN
QUIZ	81	TU	9	75	LOTHIAN
LAB	82	MWF	1/4	54	BABLER/COLEMAN
QUIZ	82	W	10	75	BABLER

Chem. 124. Quantitative Analysis. Credit 5 hours. For all students in the chemistry curriculum and chemical engineering. Prerequisite: Chemistry 108, 110 or equivalent.

LEC	G	MW	2	227	GOTTLIEB
LAB	86	MWF	8/11	54	GOTTLIEB
QUIZ	86	F	2	76	GOTTLIEB
LAB	87	MWF	3/6	54	SAVOY
QUIZ	87	TU	4	75	SAVOY

Chem. 133. Elementary Organic Chemistry. Credit 5 hours. To fulfill the requirements for premedical, predental, preveterinary, dietetics, and home economics students. Prerequisite: Chemistry 105 or equivalent.

LEC	D	WF	11	217	CRUM
EXAM		M	11	217	
LAB	91	TT	9/12	52	CRUM
QUIZ	91	M	9	74	CRUM
LAB	92	MW	2/5	52	CRUM
QUIZ	92	F	2	74	CRUM

Chem. 234. Organic Chemistry. Credit 5 hours. For students whose major is chemistry, or for those registered in the curriculum in chemistry or chemical engineering. Prerequisite: Chemistry 124.

LEC	S	TT	1	227	BACHRACH
LAB	96	WF	2/5	52	BACHRACH
QUIZ	96	M	2	75	BACHRACH

Chem. 247. Elementary Physical Chemistry. Credit 4 hours. For premedical students and others not in chemistry and engineering curricula. Lectures and laboratory. Prerequisite: Chemistry 122 and 133; Physics 102 or equivalent.

LEC	E	MWF	12	217	SCHRAGE
LAB	98	M	3/6	50A	SCHRAGE

CIVIL ENGINEERING

C. E. 101. Elementary Surveying. Credit 3 hours. Fundamental surveying operations. Prerequisite: General Engineering 101 and credit or registration in Mathematics 123.

A	TT	9/12	63	COE
B	WF	9/12	63	COE

C. E. 210. Properties of Soils. Credit 3 hours. Identification and classification of earth materials; hydraulic and mechanical properties of soils; character of natural soil deposits; and appraisal of methods of subsurface exploration. Laboratory determination of the index properties of soils. Prerequisite: Credit or registration in Theoretical and Applied Mechanics 221, Geology 150, and junior standing in engineering or architecture

F1	MF	1	63	GERSTNER
F	TU	12/2	63	GERSTNER

C. E. 214. Composition and Properties of Concrete. Credit 2 hours. Properties and uses of cements, aggregates, mixing water, and admixtures; composition and properties of concrete mixtures; field practices in the production of concrete. Laboratory practice in the design and control of quality concrete. Prerequisite: Theoretical and Applied Mechanics 223 or 224, and junior standing in engineering or architecture, or consent of instructor.

C	MW	2/4	61	COE

C. E. 261. Theory of Determinate Structures. Credit 3 hours. A study of the fundamental theory of statically determinate structures with applications to the evaluation of reactions, shears, and moments in beams and stresses in trusses for fixed and moving loads; introduction to deflection computations. Prerequisite: Credit or registration in Theoretical and Applied Mechanics 221.

E1	MWF	12	63	PABARCIUS

ECONOMICS

Econ. 100. Introduction to Business. Credit 3 hours. An introductory course on the principles and practices of our economic system from the point of view of the business manager. Open to freshmen only.

A1	MWF	8	22	CRABB
B1	MWF	9	21	MILLER
C1	MWF	10	17	CRABB
D1	MWF	11	17	
F1	MW	1	19	GILLETT
	F	1	17	
G1	MWF	2	24	SHAW
H1	MWF	3	21	SHAW
J1	MWF	4	21	
J2	MWF	4	19	GRAMPP

M10	TT	9	17	SELTZER
	F	9	16	
N10	TT	10	17	SELTZER
	F	10	16	
Q1	MTT	12	22	DICKETT
R1	MTT	1	16	DICKETT
T1	MTT	3	24	DICKETT
U1	MTT	4	24	DICKETT

Econ. 102. Principles of Economics I. Credit 3 hours. An introduction to the major areas of modern economic theory and public policy—product prices, the firm under varying conditions of competition and monopoly, productive factor pricing. Prerequisite: One year of college work.

A1	MWF	8	23	GILLETT
G1	MWF	2	22	ALHADEFF
H1	MWF	3	22	ALHADEFF
M1	MTT	9	16	SHAW
N1	MTT	10	16	SHAW
R1	MTT	1	22	SELTZER
T1	MTT	3	33	SELTZER

Econ. 103. Principles of Economics II. Credit 3 hours. Continuation of Economics 102. Monetary theory, national income theory, and international economics; public policy arising out of the problems of the structure of industry, economic stability, monetary and banking institutions. Prerequisite: Economics 102.

D1	MWF	11	22	MILLER
G1	MWF	2	17	LARSON
R10	TT	1	33	LARSON
	F	1	22	

Econ. 108. Elements of Economics. Credit 3 hours. A general survey of the operation of the economic system, with reference to the business firm, the determination of price and output, the level of national income and the general price level, the monetary and banking system, public finance, labor relations, and international trade. For non-commerce students only. Prerequisite: One year of college work. Not open to those who have had Economics 102 or 103.

A1	MWF	8	24	MILLER
F1	MWF	1	33	MILLER
H1	MWF	3	17	GRAMPP
J1	MWF	4	33	GELDARD

N1	MTT	10	33	GELDARD
Q1	MTT	12	33	GELDARD
Q2	MTT	12	17	GRAMPP
R1	MTT	1	17	GRAMPP

Econ. 136. American Economic History. Credit 3 hours. Main events and leading personalities in the economic development of the United States as seen in the westward movement, the growth of industry, agriculture, commerce, finance, transportation, the trust movement, and labor from 1790 to the present. Open to freshmen and sophomores only.

C1	MW	10	20	
	F	10	19	
D1	MWF	11	16	CRABB
E1	MWF	12	16	CRABB
H1	MWF	3	19	

Econ. 138. European Economic History. Credit 3 hours. The evolution of the economic institutions of modern Europe in relation to the development of industry, commerce, transportation, and finance in the principal European nations. Open to freshmen and sophomores only.

G1	MWF	2	23	GELDARD

Econ. 170. Elements of Statistics. Credit 3 hours. Method of collection—presentation and interpretation of quantitative economic data, averages, dispersion, index numbers, reliability of statistics, time series analysis, and simple correlation. Commerce students are required to register in Economics 170; they will not receive credit for Psychology 135, Mathematics 161, or Economics 171. Prerequisite: Economics 102 or 108; Sophomore standing.

QUIZ	1	MW	9	33	DERRICK
LAB	1	F	9/11	33	DERRICK
QUIZ	2	MW	11	33	DERRICK
LAB	2	F	11/1	33	DERRICK
QUIZ	3	MW	2	33	DERRICK
LAB	3	F	2/4	33	DERRICK

EDUCATION

Ed. 101. Nature of the Teaching Profession. Credit 2 hours. An orientation course. This course is designed to help the student get answers to the questions: "What does education in its various branches have to offer?" and "What preparation in general education, subject matter fields, and professional education is required or desirable?" Through an extensive testing and counseling program this course is designed to help the student evaluate his potentialities and problems with reference to becoming a teacher.

D1	MW	11	37	SHALABI
M1	TT	9	22	RICKS

N1	TT	10	22	SHALABI
Q1	TT	12	16	SHALABI

Ed. 109. Educational Psychology. Credit 3 hours. The basic undergraduate course in psychology of education for prospective teachers. Materials and principles from the various areas of psychology (mental hygiene, learning, etc.) are applied to the practical problems of teaching. Prerequisite: Psychology 100.

P10	TTF	11	28	RICKS

Ed. 201. Foundations of American Education. Credit 2 hours. A study of contemporary American public education in the setting of current American culture; confusions and issues with respect to the school program, its purposes, its content, its methods, and its organization are related to confusions and issues with respect to social, economic, and political purposes and organizations, both domestic and international. An attempt is made through the study of these relationships to clarify the contemporary social functions of the American school and teaching profession. Prerequisite: Psychology 100; Education 101.

F1	MW	1	28	SHALABI

ELECTRICAL ENGINEERING

E. E. 229. Electric Circuits and Fields. Credit 4 hours. Study of units and relations in electric and magnetic circuits and fields. Basic concepts of circuit parameters. Prerequisite: Physics 107; Mathematics 143; credit or registration in Mathematics 345.

QUIZ	B1	MWF	9	110
LAB	B	TU	9/12	120
QUIZ	G1	MWF	2	110
LAB	G	TH	3/6	120

ENGLISH

English 101. Introduction to Poetry. Credit 3 hours. Understanding of poetry through the reading and discussion of representative poems. Students with 95 or more credit hours receive only 2 hours credit. This course, plus English 102 and 103, satisfies the humanities requirement in general education.

D1	MWF	11	221	F JOHNSON
F1	MWF	1	221	FRIEND
G1	MWF	2	221	CHILLAG
L1	M	8	222	GALLAGHER
	TT	8	220	
P1	M	11	218	JACKMAN
	TT	11	220	

English 102. Introduction to Drama. Credit 3 hours. Understanding of drama through the reading and discussion of representative plays. The reading list includes selections from Greek, Elizabethan, modern English, continental, and American drama. Students with 95 or more credit hours receive only 2 hours credit.

C1	MWF	10	221	J JOHNSON
G1	MWF	2	220	COX
H1	MWF	3	221	CASSELL
M1	M	9	218	BLUM
	TT	9	220	
Q1	M	12	218	MACKIN
	TT	12	220	

English 103. Introduction to Fiction. Credit 3 hours. Understanding of fiction through the reading and discussion of representative short stories and novels. The reading list includes Jane Austen's *Pride and Prejudice*, Balzac's *Pere Goriot*, Arnold Bennett's *Old Wives' Tale*, Dostoevski's *Crime and Punishment*, E. M. Forster's *A Passage to India* and the anthology *Reading Modern Short Stories*. Students with 95 or more credit hours receive only 2 hours credit.

A1	MWF	8	221	I MILLER
B1	MWF	9	221	DAVIS
E1	MWF	12	221	KERWICK
G1	MWF	2	222	HARRIS
M1	M	9	222	S MILLER
	TT	9	221	
N1	M	10	222	NICHOLAS
	TT	10	220	
P1	M	11	222	LEONHARD
	TT	11	221	
T1	M	3	218	GRIEST
	TT	3	221	

English 113. American Literature. Credit 3 hours. Classic American authors before the Civil War; an introduction to Franklin, Poe, Emerson, Hawthorne, Melville, Whitman, and others. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

F1	MWF	1	220	WILLETT
J1	MWF	4	221	WEISS
L1	M	8	218	WRIGHT
	TT	8	221	

Q1	M	12	222	SCHILLER
	TT	12	221	

English 114. American Literature. Credit 3 hours. Classic American authors after the Civil War to the present; an introduction to Mark Twain, James, Dreiser, Hemingway, O'Neill, Frost, and others. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

A1	MWF	8	220	LOVE
G1	MWF	2	218	WILLETT
N1	M	10	218	WRIGHT
	TT	10	221	
R1	M	1	222	KARANIKAS
	TT	1	220	

English 121. Chief English Writers Before 1800. Credit 3 hours. *Canterbury Tales, Utopia,* two plays by Shakespeare, *Paradise Lost, Gulliver's Travels, Tom Jones, Rasselas.* This course, with English 122, is the normal prerequisite to an English major. This course, plus English 122 and 123, satisfies the humanities requirement in general education. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

B1	MWF	9	220	ATWOOD

English 122. Chief English Writers of the Nineteenth Century. Credit 3 hours. Wordsworth, Byron, Carlyle's *Past and Present,* Arnold's prose and poetry, FitzGerald's *The Rubaiyat of Omar Khayyam,* readings from T. H. Huxley, Browning's poems, and one novel. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

D1	MWF	11	220	J JOHNSON

English 123. Chief Modern English Writers. Credit 3 hours. Conrad, Eliot, Joyce, Lawrence, Shaw, Yeats, and others. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

E1	MWF	12	220	WEISS

English 131. Introduction to Shakespeare. Credit 3 hours. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

C1	MWF	10	220	VEST

FRENCH

French 101. Elementary Course. Credit 4 hours. Grammar, pronunciation, reading of modern authors, composition, and conversation. For students who have no credit in French. Students with 95 or more credit hours receive only 3 hours credit. No credit for graduation is given for French 101, without French 102.

A1	TWTF	8	230	LEIN
B1	TWTF	9	232	SKOGEN
C1	TWTF	10	232	SKOGEN
C2	TWTF	10	230	LEIN

D1	TWTF	11	232	RUSSELL
D2	TWTF	11	230	**TOMASEK**
F1	TWTF	1	232	RUSSELL
F2	TWTF	1	230	
H1	TWTF	3	236	**TOMASEK**
H2	TWTF	3	230	
J1	TWTF	4	232	RUSSELL
J2	TWTF	4	230	

French 102. Elementary Course. Credit 4 hours. Continuation of French 101. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: French 101 or one year of high school French.

B1	TWTF	9	230	LEIN
E1	TWTF	12	236	**TOMASEK**
J1	TWTF	4	236	**TOMASEK**

French 103. Modern French. Credit 4 hours. Rapid reading of modern authors, syntax, and composition; some conversational practice. Prerequisite: French 102 or two years of high school French.

A1	TWTF	8	232	SKOGEN
B1	TWTF	9	236	SCHUYLER
D1	TWTF	11	236	SCHUYLER
E1	TWTF	12	232	SKOGEN
H1	TWTF	3	232	RUSSELL

French 104. Modern French. Credit 4 hours. Continuation of French 103. Prerequisite: French 103 or three years of high school French.

C1	TWTF	10	236	SCHUYLER
E1	TWTF	12	230	LEIN

French 201. Introduction to French Literature. Credit 3 hours. Prerequisite: French 104 or four years of high school French.

R10	TTF	1	236	SCHUYLER

GENERAL ENGINEERING

G. E. 101. Engineering Graphical Communication. Credit 3 hours. Lettering; orthographic projection; working drawings; chart and diagram drawings; isometric and oblique drawing; freehand sketching; tracings; methods of reproducing drawings. Prerequisite: Plane geometry.

A1	MWF	8/10	135
A2	MWF	8/10	136
A3	MWF	8/10	137
A4	MWF	8/10	141

B1	MWF	10/12	135
B2	MWF	10/12	136
B3	MWF	10/12	137
B4	MWF	10/12	141
C1	MWF	12/2	135
C3	MWF	12/2	137
C4	MWF	12/2	141
D1	MWF	2/4	135
D2	MWF	2/4	136
D3	MWF	2/4	137
D4	MWF	2/4	141
E5	MWF	4/6	143
E6	MWF	4/6	145
F1	TT	8/11	135
F2	TT	8/11	136
F3	TT	8/11	137
F4	TT	8/11	141
F5	TT	8/11	143
G1	TT	11/2	135
G2	TT	11/2	136
G3	TT	11/2	137
G4	TT	11/2	141

G. E. 102. Engineering Geometry. Credit 3 hours. Theory of projections; solution of theoretical and practical problems involving size, shape, and relative position of common geometrical magnitudes such as points, lines, planes, curved surfaces, and solids; intersections, developments, shades and shadows, perspective drawings. Prerequisite: General Engineering. 101.

A5	MWF	8/10	143
B5	MWF	10/12	143
B7	MWF	10/12	146
C5	MWF	12/2	143
D5	MWF	2/4	143

G. E. 107. Architectural Projections. Credit 2 hours. Instrumentation; lettering; projection; intersections; conventions; shades and shadows. Prerequisite: Plane geometry.

A6	MWF	8/10	145
B6	MWF	10/12	145
C6	MWF	12/2	145
D6	MWF	2/4	145
D7	MWF	2/4	146
E7	MWF	4/6	146
F6	TT	8/11	145
G6	TT	11/2	145
G7	TT	11/2	146

G. E. 108. Architectural Projections. Credit 2 hours. Shades and shadows; oblique, isometric, and perspective drawings; developments. Prerequisite: General Engineering 107.

A7	MWF	8/10	146
C7	MWF	12/2	146
F7	TT	8/11	146

G. E. 212. Graphical Calculation. Credit 1 hour. Use of various types of slide rules with special attention to the log-log scales; rectification of curves from laboratory data to devise empirical equations using various types of coordinate paper, construction and use of nomographs or aligning charts. For students in engineering; accepted as an approved elective in all engineering curricula. Prerequisite: General Engineering 101 or equivalent; Mathematics 123.

A2	M	12/2	136
B2	W	12/2	136

220. History of Engineering. Study of the important elements in the growth of the art and science of engineering from ancient times to the present; lives of some of the men who have been leaders; effect of engineering on the social conditions of the various periods. I, II; 3. Prerequisite: Junior standing.

D1	MWF	11	144

GEOGRAPHY

Geog. 104. World Regional Geography. Credit 3 hours. Survey of the geographic structure of the world; regional patterns of settlement and land utilization; man's occupancy of the world. Students with 95 or more credit hours receive only 2 hours credit.

N1	MTT	10	14	COLBY
R10	TTF	1	14	COLBY

Geog. 105. Introductory Economic Geography. Credit 3 hours. Man's utilization of the major economic resources of the world from the standpoint of geographic patterns. Students with 95 or more credit hours receive only 2 hours credit.

E1	MW	12	14	FINNEY
	F	12	13	

Geog. 107. Weather and Climate. Credit 4 hours. Planetary relations; the atmosphere, its composition, functions and behavior in the production of various weather types; air masses and air mass analysis; climatic types and climatic regions; application to present day activities. This course and Geography 108 meet the general education requirements in physical sciences in Liberal Arts and Sciences.

LEC	N1	TT	10	227	RHEUMER
LAB	1	M	8/10	13	RHEUMER
QUIZ	1	W	8	13	RHEUMER
LAB	2	M	10/12	13	FINNEY
QUIZ	2	W	11	13	FINNEY
LAB	3	TU	12/2	13	RHEUMER
QUIZ	3	TH	1	13	RHEUMER
LAB	4	W	9/11	13	CUTSHALL
QUIZ	4	F	10	13	CUTSHALL

Geog. 108. Landforms and Earth Resources. Credit 4 hours. The study of landforms from the geographic point of view; maps and their use; earth resources (native vegetation, soils, water resources, mineral resources); their development and utilization. This course and Geography 107 meet the general education requirements in physical sciences in Liberal Arts and Sciences.

LEC	Q1	TT	12	227	FINNEY
LAB	11	M	12/2	13	RHEUMER
QUIZ	11	W	12	13	RHEUMER
LAB	12	TU	9/11	13	FINNEY
QUIZ	12	TH	10	13	FINNEY

Geog. 123. Geography of Illinois. Credit 3 hours. Detailed regional study of the state with special emphasis on the cultural relations of Illinois to the rest of the nation. Prerequisite: Geography 101 or 104, or consent of instructor.

D1	MWF	11	14	CUTSHALL

GEOLOGY

Geol. 101. Physical Geology. Credit 4 hours. Materials, structures, surface features of the earth and processes which have produced them. Lectures, quiz, and laboratory. One-half day field trip required. Geology 101 and 102 meet the general education requirement in the physical sciences in Liberal Arts and Sciences. Students with 95 or more credit hours receive only 3 hours credit.

LEC	R	TT	1	205	KARPINSKI
LAB	1	TU	8/10	42	DEMAR
QUIZ	1	TH	8	42	DEMAR
LAB	2	TH	9/11	42	KARPINSKI
QUIZ	2	TU	10	42	KARPINSKI
LAB	3	M	10/12	42	KARPINSKI
QUIZ	3	W	10	42	ORR
LAB	4	F	10/12	42	DEMAR
QUIZ	4	W	11	42	DEMAR
LAB	5	W	1/3	42	ORR
QUIZ	5	M	2	42	ORR
LAB	6	F	1/3	42	ORR
QUIZ	6	M	1	42	ORR
LAB	7	M	3/5	42	ORR
QUIZ	7	W	4	42	ORR
LAB	8	F	3/5	42	DEMAR
QUIZ	8	W	3	42	DEMAR

Geol. 102. Historical Geology. Credit 4 hours. Evolution of the earth and its life. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Geology 101 or equivalent. This course, with Geology 102, meets the physical sciences requirement in Liberal Arts and Sciences.

LEC	P	TT	11	217	DEMAR
LAB	11	TH	12/2	42	DEMAR
QUIZ	11	TU	12	42	DEMAR

Geol. 131. Mineralogy. Credit 4 hours. A systematic study of minerals. The nature of minerals as crystalline materials, and their geologic relations are emphasized. Crystal models, crystals, and the common nonsilicate minerals are studied in the laboratory. Lecture and laboratory. Prerequisite: One semester of college chemistry.

16	MWF	8/10	42	ORR

Geol. 150. Geology for Engineers. Credit 3 hours. Prerequisite: Sophomore standing in the College of Engineering.

LEC	G	MW	2	217	KARPINSKI
LAB	21	TU	3/5	42	KARPINSKI

GERMAN

German 101. Elementary Course. Credit 4 hours. Oral practice, reading, and grammar for beginners. Not open to students who have high school credit in this language. Students with 95 or more credit hours receive only 3 hours credit. No credit toward graduation is given for German 101 without German 102.

A1	TWTF	8	218	KAUF
A2	TWTF	8	212	**SNAPPER**
B1	TWTF	9	214	WILLNER
B2	TWTF	9	222	BRAUNFELD
B3	TWTF	9	212	**SNAPPER**
C1	TWTF	10	218	KAUF
C2	TWTF	10	222	BRAUNFELD
D1	TWTF	11	216	
E1	TWTF	12	222	HARTOCH
E2	TWTF	12	216	TEICHMANN
F1	TWTF	1	214	MAURER
F2	TWTF	1	216	VARDAMAN
H1	TWTF	3	214	MAURER
H2	TWTF	3	218	GRAY
J1	TWTF	4	216	
J2	TWTF	4	218	GRAY

German 102. Elementary Course. Credit 4 hours. Continuation of German 101. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: German 101 or one year of high school German.

A1	TWTF	8	214	WILLNER
C1	TWTF	10	216	TEICHMANN
F1	TWTF	1	212	
H1	TWTF	3	216	

German 103. Intermediate Course. Credit 4 hours. Modern narrative prose. Oral practice and sight reading. Prerequisite: German 102, two years of high school German, or equivalent.

A1	TWTF	8	216	TEICHMANN
B1	TWTF	9	216	TEICHMANN
C1	TWTF	10	214	WILLNER
D1	TWTF	11	214	MAURER
E1	TWTF	12	214	WILLNER
F1	TWTF	1	222	HARTOCH
H1	TT	3	16	HARTOCH
	WF	3	24	
J1	TWTF	4	214	MAURER

German 104. Intermediate Course. Credit 4 hours. Continuation of German 103. Classical and modern narrative prose. Oral practice and sight reading. Prerequisite: German 103, three years of high school German, or equivalent.

B1	TWTF	9	218	KAUF
D1	TWTF	11	222	BRAUNFELD
F1	TWTF	1	218	BRAUNFELD

German 113. Practice in Conversation. Credit 2 hours. Oral practice for the development of elementary skill in conversation and the improvement of pronunciation. This course is supplementary to German 103 and 104. Prerequisite: German 102 or two years of high school German; registration in German 103 or 104.

Q1	TT	12	218	KAUF

German 210. Masterpieces of German literature. Credit 3 hours. Introduction to German literature, in subjects, forms, and ideals. Prerequisite: Two years of college German. or equivalent.

P10	TTF	11	218	VARDAMAN

HISTORY

Hist. 111. History of Western Civilization to 1815. Credit 4 hours. Europe from the age of the great discoveries to the close of the Napoleonic wars. This course with History 112 meets the social science requirement in Liberal Arts and Sciences. Students with 95 or more credit hours receive only 3 hours credit.

Lecture and quiz sections in this course are coordinate. Quiz section must be chosen from the group listed directly under the particular lecture section selected.

LEC	B	MW	9	205	NICHOLSON
QUIZ	A1	MW	8	94	
QUIZ	E1	MW	12	94	NICHOLSON

QUIZ	F1	MW	1	94	NICHOLSON
QUIZ	L1	TT	8	94	
QUIZ	P1	TT	11	94	NICHOLSON
QUIZ	T1	TT	3	37	GOODMAN

LEC	F1	MW	1	205	ASCH
QUIZ	A2	MW	8	37	ASCH
QUIZ	D1	MW	11	94	ASCH
QUIZ	P2	TT	11	96	ASCH
QUIZ	R1	TT	1	96	ASCH
QUIZ	T2	TT	3	96	ASCH

Hist. 131. History of England to 1714. Credit 4 hours. A survey of the political and constitutional, social and economic, church and cultural, and imperial history of the British people from the beginning of English history through 1714. This course with History 132 meets the humanities requirement in Liberal Arts and Sciences. Students with 95 or more credit hours receive only 3 hours credit.

LEC	D	W	11	213	BILL/GOODMAN
QUIZ	M10	TTF	9	37	GOODMAN
QUIZ	P10	TTF	11	37	GOODMAN
QUIZ	Q10	TTF	12	37	BILL
QUIZ	R10	TTF	1	37	GOODMAN

Hist. 151. History of the United States to 1865. Credit 4 hours. Colonial foundations, movement for independence, early years of the Republic. This course with History 152 meets the social science requirement in Liberal Arts and Sciences.

LEC	D	M	11	213	BILL
QUIZ	G1	MWF	2	38	BILL
QUIZ	L1	MTT	8	38	JONES
QUIZ	M1	MTT	9	38	BILL
QUIZ	N1	MTT	10	37	JONES
QUIZ	N2	MTT	10	38	RIDDLE
QUIZ	Q1	MTT	12	38	JONES
QUIZ	R1	MTT	1	38	JONES

Hist. 181. The Ancient World. Credit 3 hours. Ancient empires and Greece. Prerequisite: Sophomore standing.

QUIZ	N1	MTT	10	94	NICHOLSON

Hist. 369. Constitutional Development of the United States to 1865. Credit 3 hours. Prerequisite: one year of college history or political science.

QUIZ	P1	MTT	11	38	RIDDLE

HUMANITIES

Humanities 101. Values in Literature. Credit 4 hours. A general education course designed to guide the student to an understanding and appreciation of values in literature, and the relationship between recent literature and the classics. Assigned works are selected to illustrate and clarify problems in literary appreciation. Literary types studied include poetry, fiction, drama, and the film. Credit is not given for Humanities 101 in addition to English 101, 102, or 103. This course, plus Humanities 102, satisfies the general education requirement in the humanities.

A1	MTWT	8	206	RUNYAN
A2	MTWT	8	233	BLUM
D1	MTWT	11	206	RUNYAN
E1	MTWT	12	206	KOGAN
H1	MTWT	3	206	JORDAN
H2	MTWT	3	220	KOGAN
J1	MTWT	4	206	JORDAN

Humanities 151. The Heritage of Western Culture. Credit 4 hours. A study of literary masterpieces representing significant contributions to the thinking of the Western World on the topics of man's fate and his personal adjustment to life. This course, plus Humanities 152, satisfies the general education requirement in the humanities. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

B1	TWTF	9	206	VARDAMAN
C1	TWTF	10	206	VARDAMAN
F1	MTWT	1	206	SCHILLER

HYGIENE

Hygiene 104. Personal and Community Hygiene. Credit 2 hours. This course covers basic principles of hygiene. Especially recommended for those going into teaching, occupational therapy, social work, etc. Students with 95 or more credit hours receive only 1 hour credit.

A1	WF	8	237
C1	WF	10	237
F1	WF	1	237
J1	WF	4	237

M1	TT	9	237	
N1	TT	10	237	
P1	TT	11	237	
R1	TT	1	237	
T1	TT	3	237	

Hygiene 110. Public Health. Credit 2 hours. Material presented deals with information about community public health problems and the program designed to prevent disease and promote health education. This is especially valuable for all people who go into health professions or related community work. Field trips and surveys supplement class work. Teachers, coaches, social workers will need this course in their future professional work. Students with 95 or more credit hours receive only 1 hour credit. Prerequisite: Hygiene 104.

P1	TT	11	GYM

MANAGEMENT

Management 101. Industrial Organization and Management. Credit 3 hours. Organization plans, administrative policies, and management problems with special attention to manufacturing units. Prequisite: Economics 102, or 108, or consent of Associate Dean of the college; forty-five credit hours.

B1	MWF	9	23	GILLETT
D1	MWF	11	23	GILLETT

MARKETING

Marketing 101. Principles of Marketing. Credit 3 hours. The functions, commodities, and middlemen involved in the marketing of goods and services; the policies and problems involved in the operation of market institutions. Prerequisite: Economics 102, or 108, or consent of Associate Dean of the college; forty-five credit hours.

C1	MWF	10	24	ALHADEFF
E1	MWF	12	23	ALHADEFF

MATHEMATICS

Math. 102. Basic Mathematics. Credit 3 hours. Continuation of Mathematics 101. Prerequisite: Mathematics 101.

G1	MWF	2	104	HILL

Math. 103. Introduction to College Algebra. Credit 3 hours. Fundamental operations, simple equations, factoring, fractions, exponents, radicals, linear equations in more than one variable, graphing, quadratic equations in one unknown. Students having 1½ entrance units in algebra receive no credit. Students with 95 or more credit hours receive no credit.

A1	MTWTF	8	201	ZIOMEK
A2	MTWTF	8	104	LUMLEY
A3	MTWTF	8	102	
A4	MWF	8	111	GORDON
B1	MTWTF	9	105	ONDRAK
B2	MTWTF	9	102	VEDRAL
B3	MTWTF	9	101	SJOBLOM
B4	MWF	9	100	FEINSTEIN
C1	MTWTF	10	100	GORDON
C2	MTWTF	10	82	BERGLUND
D1	MTWTF	11	102	ZYGMUND
D2	MTWTF	11	201	OLSEN
D3	MWF	11	111	SJOBLOM
E1	MTWTF	12	102	BERGLUND
F1	MTWTF	1	105	HENDERLEITER
F2	MTWTF	1	201	LINN
G1	MWF	2	106	MURPHY
G2	MWF	2	111	ALBERTI
H1	MTWTF	3	201	MERTES
H2	MTWTF	3	104	WILEY
H3	MWF	3	106	PENNISI
J1	MTWTF	4	105	NOLAN
J2	MTWTF	4	101	REES
J3	MWF	4	106	HILL
N1	MTT	10	106	CURTIS
N2	MTT	10	111	ZIOMEK

Q1	MTT	12	82	BALLARD
Q10	TT	12	100	KUZMANIC
	F	12	104	
R1	MTT	1	106	SEARS
T1	MTT	3	102	ALBERTI

Math. 109. Fundamentals of Mathematics. Credit 4 hours. For students who do not specialize in mathematics. A survey of the character of mathematics as a subject and its relations to science, art, philosophy, and knowledge in general. Mathematics 109 and 110 meet the physical science requirement in general education in Liberal Arts and Sciences. Prerequisite: Consent of the department.

D1	MTWT	11	101	HARTLEY

Math. 111. Algebra. Credit 5 hours. Students with 95 or more credit hours receive only 3 hours credit. Required for students in Architecture deficient in algebra. Other students admitted only by consent of their college office and the Mathematics Department. Prerequisite: Entrance algebra, 1 unit and plane geometry, 1 unit.

E1	MTWTF	12	111	REES
F1	MTWTF	1	111	LASHER
H1	MTWTF	3	111	NOLAN

Math. 112. College Algebra. Credit 3 hours. Theory of quadratic equations, progressions, binomial theorem, permutations, combinations, determinants, introduction to the theory of equations, logarithms. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Entrance algebra, 1½ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.

* Sections open to Commerce students only.

*	A1	MWF	8	106	
	A2	MWF	8	100	FEINSTEIN
	B1	MWF	9	103	FRANK
	B2	MWF	9	111	OLSEN
*	C1	MWF	10	105	ONDRAK
	D1	MWF	11	106	SCHOLOMITI
	D2	MWF	11	100	SEARS
*	E1	MWF	12	100	PENNISI
	F1	MWF	1	103	FRANK
	F2	MWF	1	104	HARTLEY

• G1	MWF	2	102	WILEY
G2	MWF	2	101	LINN
G3	MWF	2	82	ZYGMUND
G4	MWF	2	201	MERTES
H1	MWF	3	82	SCHOLOMITI
J1	MWF	4	201	HENDERLEITER
J2	MWF	4	103	PENNISI
N10	TT	10	103	KUZMANIC
	F	10	106	
N11	TT	10	110	MURPHY
	F	10	111	
P10	TT	11	111	KUZMANIC
	F	11	101	
Q1	MTT	12	104	HILL
Q10	TT	12	106	LUMLEY
	F	12	82	
R10	TT	1	101	ALBERTI
	F	1	106	
T10	TT	3	106	DINKINES
	F	3	102	

Math. 114. Plane Trigonometry. Credit 2 hours. Identities, equations, addition formulas and derived relations, solution of right and oblique triangles, radian measure, inverse functions. Students with 95 or more credit hours receive only 1 hour credit. Prerequisite: Entrance algebra, 1½ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.

L1	TT	8	111	GORDON
L2	TT	8	82	VEDRAL
M1	TT	9	103	LUMLEY
M2	TT	9	111	OLSEN
M3	TT	9	100	
N1	TT	10	102	SJOBLOM
N2	TT	10	101	BALLARD
N3	TT	10	105	ONDRAK

P1	TT	11	103	CURTIS
P2	TT	11	100	ZIOMEK
P3	TT	11	106	LINN
Q1	TT	12	103	HARTLEY
Q2	TT	12	105	ZYGMUND
R1	TT	1	103	MERTES
R2	TT	1	104	NOLAN
R3	TT	1	82	WILEY
T1	TT	3	82	SCHOLOMITI
T2	TT	3	103	REES
U1	TT	4	102	LASHER
U2	TT	4	201	HENDERLEITER

Math. 123. Analytic Geometry. Credit 5 hours. Geometrical properties of curves and surfaces, coordinate systems, translation and rotation of axes, higher plane curves, parametric equations. Students with 95 or more credit hours receive only 4 hours credit. Prerequisite: Mathematics 111 or 112, and 114.

A1	MTWTF	8	103	ONDRAK
A2	MTWTF	8	105	CURTIS
B1	MTWTF	9	104	GORDON
B2	MTWTF	9	82	BALLARD
C1	MTWTF	10	201	OLSEN
D1	MTWTF	11	104	LUMLEY
D2	MTWTF	11	105	VEDRAL
E1	MTWTF	12	101	SEARS
F1	MTWTF	1	100	DINKINES
H1	MTWTF	3	100	LASHER
H2	MTWTF	3	105	HENDERLEITER
J1	MTWTF	4	104	WILEY
J2	MTWTF	4	100	MERTES

Math. 133. Calculus. Credit 3 hours. First course for students of mathematics and engineering. Theory of limits, differentiation and integration of standard algebraic and trigonometric forms, integration as a process of summation, applications. Prerequisite: Mathematics 123.

A1	MWF	8	82	VEDRAL
B1	MWF	9	106	
C1	MWF	10	103	FRANK
D1	MWF	11	103	CURTIS
E1	MWF	12	105	FEINSTEIN
F1	MWF	1	82	MURPHY
G1	MWF	2	103	NOLAN
G2	MWF	2	100	SEARS
H1	MWF	3	103	REES
J1	MWF	4	111	ALBERTI

Math. 143. Calculus. Credit 5 hours. Second course for students of mathematics and engineering. Integration of rational fractions, integration by parts, series and expansion of functions, hyperbolic functions, partial differentiation, multiple integrals, applications. Prerequisite: Mathematics 133.

A1	MTWTF	8	101	SJOBLOM
B1	MTWTF	9	201	ZIOMEK
C1	MTWTF	10	104	ZYGMUND
D1	MTWTF	11	82	BERGLUND
E1	MTWTF	12	201	LINN
F1	MTWTF	1	102	SCHOLOMITI
H1	MTWTF	3	101	HILL
J1	MTWTF	4	82	DINKINES

Math. 343. Advanced Calculus. Credit 3 hours. The course includes the vector calculus, differential and integral calculus of functions of several variables, infinite series, power series, and line and surface integrals. Prerequisite: One year of calculus.

C1	MWF	10	101	BALLARD
E1	MWF	12	106	MURPHY

Math. 345. Differential Equations and Orthogonal Functions. Credit 3 hours. Theory of solving the standard elementary differential equations and application of these. Power series, solutions of second order equations and operational methods are included. A brief introduction is given to partial differential equations and Fourier series methods. Prerequisite: One year of calculus.

C1	MWF	10	102	FEINSTEIN
E1	MWF	12	103	FRANK
G1	MWF	2	105	HARTLEY
J1	MWF	4	102	LASHER

Math. 346. Complex Variables and Applications. Credit 3 hours. Theory and application of complex variables. Complex numbers, analytic functions, integrals, power series, residues and poles, conformal mapping. Prerequisite: Mathematics 343.

F1	MWF	1	101	PENNISI

MECHANICAL ENGINEERING

M. E. 182. Manufacturing Processes. Credit 3 hours. Foundry practice; pattern design; hot and cold forming. Welding and allied processes; machine tools and machining practice; use of jigs, fixtures, and tools for manufacture of interchangeable parts. Classroom discussion and demonstrations. Prerequisite: General Engineering 101, sophomore standing.

B1	MWF	9	65
G1	MWF	2	65

M. E. 183. Materials Casting. Credit 3 hours. Casting as a process of fabrication; the molding process including machine molding; molding sands characteristics, control, and testing. Melting and pouring practice. Physical characteristics of cast materials, advantages and disadvantages; tray iron structures and elementary metallurgical concepts; design of wood and metal patterns and correlation with foundry practice; core requirements control and testing. Prerequisite: General Engineering 101; sophomore standing.

LEC	F	MF	1	65
LAB	A	TU	8/11	71
LAB	B	W	11/2	71

M. E. 184. Metal Processing. Credit 3 hours. Basic machining processes used for metal processing. Use of machine tools, jigs, fixtures, gages, and measuring instruments and inspection methods to produce interchangeable metal parts. Prerequisite: General Engineering 101; credit or registration in Integral Calculus and Physics 108.

LEC	N	TT	1	65
LAB	A	M	11/2	64
LAB	B	W	11/2	64
LAB	C	TH	11/2	64

M. E. 209. Thermodynamics and Heat Transfer. Credit 3 hours. Thermodynamic analysis of energy transfer and transformation. Properties of simple working substances. Analysis of open and closed systems, direct and reverse cycles and processes involving transfers of mass and energy. Basic laws of heat transfer. Prerequisite: Physics 107, Mathematics 142 or 143.

E1	MWF	12	110	

M. E. 221. Mechanics of Machinery. Credit 5 hours. Linkages, cams, and gears; belts, ropes, and chains; velocities, accelerations, and inertia forces in machines; vibrations and critical speeds; balancing of engines; principle of the gyroscope. Prerequisite: T.A.M. 156 or registration in Theoretical and Applied Mechanics 211.

LEC	D1	MWF	11	65
LAB	D	TT	11/2	143

MILITARY SCIENCE AND TACTICS

Mil. Sci. 101. Freshman Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: Organization of the Army and ROTC; individual weapons and marksmanship, and leadership, drill and command, Prerequisite: Military Science department approval.

THEORY	1	MW	9	238	TERRELL
THEORY	2	TT	9	238	TERRELL
THEORY	3	MW	10	238	TERRELL
THEORY	4	TT	10	238	TERRELL
THEORY	5	MW	11	238	TERRELL
THEORY	6	TT	11	238	TERRELL
DRILL	1	TU	8	AUD	YOUNG
DRILL	2	W	8	AUD	YOUNG

Mil. Sci. 103. Sophomore Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: Map and aerial photographs; basic tactics; and leadership, drill, and command. Prerequisite: Military Science 102 or equivalent.

THEORY	1	MW	1	238	MANSFIELD
THEORY	2	TT	12	238	MANSFIELD
THEORY	3	MW	2	238	MANSFIELD
THEORY	4	TT	1	238	MANSFIELD
DRILL	1	TU	8	AUD	CRUMPACKER
DRILL	2	W	8	AUD	CRUMPACKER

MUSIC

Music 100. Rudiments of Theory. Credit 2 hours. Notation, scales, intervals, chords, terminology.

D1	MWF	11	354	FISSINGER

Music 130. Introduction to the Art of Music, I. Credit 3 hours. Designed primarily for the layman. Main objectives are to train students in intelligent listening and to acquaint them with many great works of the literature of music. For nonmusic students only.

C1	MWF	10	354	FISSINGER

Music 150. Music Ensemble. Credit ½ hour. Band, Orchestra, Chorus. Admission by consent of director. This course may be repeated to earn a maximum of 2 semester hours of credit.

* Sectional rehearsals to be arranged.

A	TT	*2	354	CHARKOVSKY
B	TT	12	354	CHARKOVSKY
C	F	3/5	354	FISSINGER

PHILOSOPHY

Phil. 101. Introduction to Philosophy. Credit 3 hours. Discussion of problems in the field of morals, art, and knowledge, with selected readings from philosophers whose views have been influential in Western culture. Phil. 101, 102, 105 form an approved humanities sequence in Liberal Arts and Sciences. Credit 3 hours. Prerequisite: Sophomore standing.

N10	TTF	10	28	MORRIS
Q10	TTF	12	94	PAGE
G1	MWF	2	14	PAGE
H1	MWF	3	14	PAGE

Phil. 102. Logic. Credit 3 hours. Reasoning, detection of fallacies, evidence. Prerequisite: Sophomore standing.

L1	MTT	8	28	MORRIS
D1	MW	11	28	MORRIS
	F	11	94	
R10	TTF	1	94	PAGE

Phil. 105. Moral Ideas and Practice. Credit 2 Hours. Credit is not given for both Philosophy 103 and 105. Prerequisite: Sophomore standing.

N1	TT	10	96	PAGE

Phil. 303. History of Greek and Roman Philosophy. Credit 4 hours. The teachings of the philosophers who figure most prominently in the Greek and Roman era—approximately the period from the sixth century B.C. to the fourth century A.D. Prerequisite: Junior standing or consent of instructor.

B1	MTWT	9	28	MORRIS

PHYSICAL EDUCATION FOR MEN

All TT classes meet for 1½ hours; students will be released early to participate in extra-curricular activities.

* **Special conditioning sections.**
** **Adaptive only.**

P. E. M. 101, 102, 103, 104. Prescribed Exercises. Credit 1 hour. Open only to students who are assigned by the Health Service. Students enrolling for the first time should register for P. E. M. 101. Students enrolling for the second, third, or fourth time should register for P. E. M. 102, 103, 104, respectively.

	C	MWF	10	GYM	NEMOTO
	D	MWF	11	GYM	DESCOUROUEZ
	E	MWF	12	GYM	MAKSUD
	F	MWF	1	GYM	MAKSUD

P. E. M. 106. Developmental Activities. Credit 1 hour. Activities that contribute to the development and maintenance of physical fitness according to social and hygenic standards.

	A	MWF	8	GYM	BECK
	B1	MWF	9	GYM	RUSSO
**	B2	MWF	9	GYM	VERSEN
	C1	MWF	10	GYM	STRNAD
	C2	MWF	10	GYM	
	D1	MWF	11	GYM	VERSEN
	D2	MWF	11	GYM	RADER
	E1	MWF	12	GYM	RUSSO
	E2	MWF	12	GYM	NEMOTO
	F1	MWF	1	GYM	FORDHAM
	F2	MWF	1	GYM	
	G1	MWF	2	GYM	RADER
**	G2	MWF	2	GYM	MILLER
	H	MWF	3	GYM	MILLER

P. E. M. 107. Beginning Swimming. Credit 1 hour. For nonswimmers (inability to swim 100 yards). Students must have 8:00 and 9:00 hours free on TT. First class will meet in the Gym. A service fee of $7.50 per student will be collected during the first class period.

MN	TT	9	**LAWSON YMCA**	DESCOUROUEZ

P. E. M. 109. Advanced Swimming. Credit 1 hour. For swimmers (ability to swim at least 100 yards). Student must have 8:00, 9:00 and 10:00 hours free on TT. First class will meet in the Gym. A service fee of $7.50 per student will be collected during the first class period.

NP	TT	10	**LAWSON YMCA**	KRISTUFEK

P. E. M. 112. Individual Tumbling Stunts. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

B	MWF	9	GYM	DESCOUROUEZ
NP	TT	10	GYM	BECK
C	MWF	10	GYM	RUSSO
D	MWF	11	GYM	FORDHAM
PQ	TT	11	GYM	SPRINGER
E	MWF	12	GYM	MONTCALM
QR	TT	12	GYM	DESCOUROUEZ
F	MWF	1	GYM	MILLER
RS	TT	1	GYM	RUSSO

P. E. M. 113. Double Tumbling Stunts. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

G	MWF	2	GYM	SPRINGER

P. E. M. 114. Apparatus Stunts. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

C	MWF	10	GYM	NOLAN
NP	TT	10	GYM	MONTCALM
D	MWF	11	GYM	MONTCALM
PQ	TT	11	GYM	BECK
E	MWF	12	GYM	BECK
RS	TT	1	GYM	NOLAN

P. E. M. 117. Boxing. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

B	MWF	9	GYM	BECK
NP	TT	10	GYM	RUSSO
D	MWF	11	GYM	KRISTUFEK
E	MWF	12	GYM	BERRAFATO
QR	TT	12	GYM	
F	MWF	1	GYM	NOLAN

P. E. M. 118. Wrestling. Credit 1 hour. Skill, knowledge, attitudes, and conditions.

C	MWF	10	GYM	VERSEN
NP	TT	10	GYM	STRNAD
D	MWF	11	GYM	STRNAD
E	MWF	12	GYM	STRNAD
QR	TT	12	GYM	VERSEN
F	MWF	1	GYM	DESCOUROUEZ
G	MWF	2	GYM	

P. E. M. 120. Personal Defense Activities. Credit 1 hour. Skills, knowledge, attitudes and conditions.

A	MWF	8	GYM	NEMOTO
PQ	TT	11	GYM	NEMOTO
RS	TT	1	GYM	RADER

P. E. M. 122. Individual Athletics. Credit 1 hour. Skills, knowledge, attitudes and conditions.

E	MWF	12	GYM	SPRINGER

P. E. M. 123. Weight Lifting. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

A	MWF	8	GYM	DESCOUROUEZ
LM	TT	8	GYM	NEMOTO
B	MWF	9	GYM	GEDVILAS
MN	TT	9	GYM	NOLAN
C	MWF	10	GYM	FORDHAM
NP	TT	10	GYM	
D	MWF	11	GYM	GEDVILAS
PQ	TT	11	GYM	DESCOUROUEZ
E	MWF	12	GYM	MILLER
QR	TT	12	GYM	BERRAFATO
F	MWF	1	GYM	RADER
RS	TT	1	GYM	BECK
G	MWF	2	GYM	BERRAFATO

P. E. M. 129. Volleyball. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

	LM	TT	8	GYM	
	MN	TT	9	GYM	VERSEN
	NP	TT	10	GYM	BERRAFATO
	PQ	TT	11	GYM	STRNAD
	QR	TT	12	GYM	MAKSUD
	RS	TT	1	GYM	
*	G	MWF	2	GYM	FORDHAM
*	H	MWF	3	GYM	RADER

P. E. M. 130. Basketball. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

	C	MWF	10	GYM	GEDVILAS
	F	MWF	1	GYM	RUSSO
	G	MWF	2	GYM	MAKSUD

P. E. M. 132. Archery. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

	PQ	TT	11	GYM	RADER

P. E. M. 136. Badminton. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

	LM	TT	8	GYM	VERSEN
	MN	TT	9	GYM	BERRAFATO
	NP	TT	10	GYM	NOLAN
	PQ	TT	11	GYM	RUSSO
	QR	TT	12	GYM	KRISTUFEK
	RS	TT	1	GYM	MAKSUD

P. E. M. 139. Backyard Sports. Credit 1 hour. Skills, knowledge, and conditions.

*	A	MWF	8	GYM	VERSEN
*	B	MWF	9	GYM	NEMOTO
	MN	TT	9	GYM	NEMOTO

P. E. M. 140. Boating and Fishing. Credit 1 hour. Prerequisite: Two hours of credit in physical education and a score on the physical fitness test that allows the student a free choice of activities or approval of the Director of Physical Education. Students must furnish their own personal equipment, but should purchase no equipment until after the first meeting of the class. Boats, canoes, life jackets will be furnished.

	NP	TT	10	GYM	RADER
	QR	TT	12	GYM	SPRINGER

P. E. M. 143. American Square Dance. Credit 1 hour.

G	MWF	2	AUD	LYNN

P. E. M. 150. Professional Orientation. Credit 2 hours. Introduction to the fields of physical education, athletics, health, safety, recreation. For physical education majors.

D	M	11	227	MAKSUD
	W	11	74	

P. E. M. 153. Fitness Programs. Credit 2 hours. Physical fitness tests; calisthenics, medicine ball, bulldozer, grass, all-out and locomotor exercises; leadership techniques. For physical education majors. To be taken with P.E.M. 154. **FIRST EIGHT WEEKS.**

A	MTWTF	8/10	GYM	MONTCALM

P. E. M. 154. Swimming. Credit 2 hours. Crawl, back, breast, and side strokes; diving; life saving. To be taken with P.E.M. 153. For physical education major. **SECOND EIGHT WEEKS.**

A1	MTWTF	8/10	GYM	SPRINGER
A2	MTWTF	8/10	GYM	KRISTUFEK

P. E. M. 155. Gymnastics. Credit 1 hour. Tumbling, apparatus stunts. To be taken with P.E.M. 156. For physical education majors. **2nd 8 WEEKS.**

A	MTWTF	8/10	GYM	MONTCALM

P. E. M. 156. Wrestling. Credit 1 hour. Skills, rules. To be taken with P.E.M. 165. For physical education majors. **2nd 8 WEEKS.**

A	MTWTF	8/10	GYM	STRNAD

P. E. M. 157. Track and Field. Credit 1 hour. Track events, field events. To be taken with P.E.M. 158. For physical education majors. **2nd 4 WEEKS.**

A	MTWTF	8/10	GYM	SPRINGER

P. E. M. 158. Baseball. Credit 1 hour. Baseball skills, rules. To be taken with P.E.M. 157. For physical education majors. **1st 4 WEEKS.**

A	MTWTF	8/10	GYM	MILLER

P. E. M. 209. History of Sports. Credit 3 hours. Development of sports and physical education in Europe and United States since 1750. For physical education majors only.

F	MWF	1	80	KRISTUFEK

RECREATION

Recreation 174. Camp Counseling. Credit 3 hours. Objectives, administration, techniques, activity programs, evaluation.

E	MWF	12	65	GEDVILAS

Recreation 176. Principles of Recreation. Credit 3 hours. History of leisure and recreation; concepts of play and recreation; major recreation agencies.

D	MWF	11	GYM	BERRAFATO

PHYSICAL EDUCATION FOR WOMEN

All TT classes meet for 1½ hours; students will be released early to participate in extra-curricular activities.

P. E. W. 100. Conditioning Activities. Credit 1 hour. Foundation course offering activities for the maintenance and improvement of physical fitness.

MN	TT	9	AUD	PAPPAS
PQ	TT	11	AUD	PAPPAS
D	MWF	11	AUD	ROZEN
E	MWF	12	AUD	PAPPAS
RS1	TT	1	AUD	LYNN
RS2	TT	1	AUD	ROZEN
H	MWF	3	AUD	ROZEN
TU	TT	3	AUD	ROZEN
UW	TT	4	AUD	ROZEN

P. E. W. 102. Modified Activities. Credit 1 hour. Prescribed recreational sports, relaxation, and exercise. Prerequisite: Recommendation from the Department of Health Service.

E	MWF	12	AUD	LYNN

P. E. W. 105. Elementary Rhythms. Credit 1 hour. Beginning techniques in the field of dance..

B	MWF	9	AUD	PAPPAS
MN	TT	9	AUD	CLAYPOOLE
NP	TT	10	AUD	CLAYPOOLE
C	MWF	10	AUD	CLAYPOOLE
D1	MWF	11	AUD	CLAYPOOLE
D2	MWF	11	AUD	PAPPAS
QR	TT	12	AUD	PAPPAS

P. E. W. 106. Intermediate Rhythms. Credit 1 hour. Intermediate dance techniques, solo and group dance compositions. Prerequisite: Physical Education for Women 105 or consent of instructor.

PQ	TT	11	AUD	CLAYPOOLE

P. E. W. 110. Elementary Swimming. Credit 1 hour. A beginning course for those with little aquatic experience. **FIRST EIGHT WEEKS.**

A	MTWTF	8	**LAWSON YMCA**	LYNN

P. E. W. 123. Basketball. Credit 1 hour.

A	MTHF	8	AUD	PAPPAS
F	MWF	1	AUD	ROZEN

P. E. W. 124. Volleyball. Credit 1 hour.

C	MWF	10	AUD	LYNN

P. E. W. 130. Badminton. Credit 1 hour. Personal equipment to be furnished by student.

G	MWF	2	AUD	ROZEN

P. E. W. 136. Tennis— Credit 1 hour. Personal equipment to be furnished by the student.

QR	TT	12	AUD	PESAVENTO

P. E. W. 140. Boating and Fishing. Credit 1 hour. Open to students who have completed two semesters of physical education, or consent of instructor.

PQ	TT	11	AUD	LYNN

P. E. W. 143. American Square Dance. Credit 1 hour.

G	MWF	2	AUD	LYNN

P. E. W. 144. Elementary Folk Dance. Credit 1 hour.

E	MWF	12	AUD	BARTON

P. E. W. 150. Professional Orientation. Credit 2 hours. Introduction to the fields of physical education, health, safety, recreation and dance.

PQ	TT	11	AUD	PESAVENTO

P. E. W. 151. Body Mechanics, Gymnastics and Hockey. Credit 1 hour. Skill in fundamental body movements, posture and physical conditioning. For physical education majors.

B	MTWTF	9	AUD	PESAVENTO

P. E. W. 153. Hockey, Soccer and Basketball. Credit 1 hour. Skills, rules, team tactics. For physical education majors.

C	MTWTF	10	AUD	PESAVENTO

DANCE

Dance 235. Folk, Square and Social Dance. Credit 2 hours. Designed for men and women students majoring in physical education, recreation and dance. Methods of teaching and directing ballroom, folk and American square dances in school and community groups with emphasis on organization and leadership.

F	MTWTF	1	AUD	CLAYPOOLE

HEALTH EDUCATION

H. E. 281. First Aid. Credit 2 hours. Red Cross course in first aid.

D	MW	11	AUD	BARTON

PHYSICAL SCIENCE

Phys. Sci. 101. Introduction to the Physical Sciences. Credit 4 hours. A course designed to meet the general education requirements in physical science. The more important principles of physics, chemistry, geology, and other branches of physical science are introduced and co-ordinated in order to give the non-science student an understanding and appreciation of the field. Credit will not be given for both Physical Science 101-102 and Division of General Studies 141-142. Credit will not be allowed to a student who has college credit in physics or geology. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Two units of high school mathematics or consent of the department.

LEC	M	TT	9	205	MILLER
LAB	1	TU	3/6	85	POTEMPA
QUIZ	1	TH	4	75	POTEMPA
LAB	2	W	8/11	85	JOHNSON
QUIZ	2	F	8	75	JOHNSON
LAB	3	W	11/2	85	COWIN
QUIZ	3	F	12	75	COWIN
LAB	4	W	2/5	85	MILLER
QUIZ	4	F	2	75	MILLER
LAB	5	TH	11/2	85	FARAG
QUIZ	5	M	1	76	FARAG
LAB	6	F	8/11	85	MILLER
QUIZ	6	W	9	74	MILLER
LAB	7	F	11/2	85	FARAG
QUIZ	7	M	12	76	FARAG
LAB	8	F	2/5	85	COWIN
QUIZ	8	W	4	74	COWIN
LAB	9	M	8/11	85	JOHNSON
QUIZ	9	F	9	74	JOHNSON

Phys. Sci. 102. Introduction to the Physical Sciences. Credit 4 hours. A continuation of Physical Science 101. Credit will not be given for both Physical Science 101-102 and Division of General Studies 141-142. Credit will not be allowed to a student who has college credit in physics or geology. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Physical Science 101, or Division of General Studies 141.

LEC	B	WF	9	217	COLEMAN
LAB	11	M	12/3	85	COLEMAN
QUIZ	11	W	12	74	COLEMAN

LAB	12	TU	8/11	85	COLEMAN
QUIZ	12	TH	9	75	COLEMAN

PHYSICS

Physics 101. General Physics (Mechanics, Heat, Sound). Credit 5 hours. Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and architecture. Prerequisite. Trigonometry.

LEC	X	TU	11	127	
LEC	Y	TU	1	127	
QUIZ	B1	MWF	9	134	WILBUR
LAB	B	TH	8/11	117	WILBUR
QUIZ	D1	MWF	11	134	WILBUR
LAB	D	TU	8/11	117	WILBUR
QUIZ	E1	MWF	12	134	LIVERMORE
LAB	E	TH	11/2	117	LIVERMORE
QUIZ	H1	MWF	3	134	LIVERMORE
LAB	H	TU	3/6	117	LIVERMORE

Physics 102. General Physics (Electricity, Magnetism, Light, and Modern Physics). Credit 5 hours. Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and architecture. Prerequisite: Physics 101.

LEC	X	TH	11	127	
QUIZ	C1	MWF	10	144	SILKETT
LAB	C	TU	8/11	122	SILKETT
QUIZ	E1	MWF	12	144	SILKETT
LAB	E	TH	3/6	122	

Physics 106. General Physics (Mechanics). Credit 4 hours. Lectures with demonstrations, recitations, and laboratory. For students in engineering, Mathematics, physics, and chemistry. Prerequisite: Credit or registration in mathematics 133.

LEC	X	M	10	127	
LEC	Y	M	1	127	
QUIZ	A1	WF	8	134	MORAINE
LAB	A	TH	8/11	123	MORAINE
QUIZ	C1	WF	10	134	MORAINE
LAB	C	TH	8/11	123	MORAINE

QUIZ	F1	WF	1	134	WEISSMAN
LAB	F	TH	3/6	123	WEISSMAN
QUIZ	M1	TT	9	134	HASLETT
LAB	M	W	8/11	123	HASLETT
QUIZ	N1	TT	10	134	MINKLER
LAB	N	F	8/11	123	MINKLER
QUIZ	Q1	TT	12	134	MORAINE
LAB	Q	M	3/6	123	MORAINE
QUIZ	R1	TT	1	134	SKADELAND
LAB	R	F	12/3	123	SKADELAND
QUIZ	T1	TT	3	134	SKADELAND
LAB	T	W	12/3	123	SKADELAND

Physics 107. General Physics (Heat, Electricity, Magnetism). Credit 4 hours. Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. Prerequisite: Physics 106; credit or registration in Mathematics 143.

LEC	X	W	10	127	
LEC	Y	W	1	127	
QUIZ	B1	MF	9	144	RAILSBACK
LAB	B	TH	8/11	122	RAILSBACK
QUIZ	F1	MF	1	144	ANDERSON
LAB	F	TH	11/2	122	ANDERSON
QUIZ	L1	TT	8	134	HASLETT
LAB	L	F	8/11	122	HASLETT
* QUIZ	M1	TU	9	144	JOHNSON
* LAB	M	M	8/11	122	JOHNSON
QUIZ	P1	TT	11	144	PAPPADEMOS
LAB	P	F	11/2	122	PAPPADEMOS
QUIZ	R1	TT	1	144	HASLETT
LAB	R	TU	3/6	122	BESS
QUIZ	T1	TT	3	144	ANDERSON
LAB	T	M	3/6	122	ANDERSON

*** Requires special permission.**

Physics 108. General Physics (Sound, Light, Modern Physics). Credit 4 hours. Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. Prerequisite: Credit or registration in Physics 107 and Mathematics 143.

*** Requires special permission.**

LEC	X	F	10	127	
LEC	Y	F	1	127	
QUIZ	F1	MW	1	113	MINKLER
LAB	F	TU	11/2	124	MINKLER
QUIZ	H1	MW	3	144	PAPPADEMOS
LAB	H	TH	3/6	124	PAPPADEMOS
QUIZ	L1	TT	8	144	MINKLER
LAB	L	W	8/11	124	MINKLER
* QUIZ	M1	TH	9	144	JOHNSON
* LAB	M	M	8/11	124	JOHNSON
QUIZ	P1	TT	11	134	MCNEIL
LAB	P	W	12/3	124	MCNEIL

Physics 321. Theoretical Mechanics. Credit 4 hours. Laws of motion, vectors, statics, energy and momentum principles for a particle and for systems or particles. motion of a particle under constant forces, plane motion of a rigid body, simple harmonic motion and resonance, impact. Prerequisite: General Physics and Calculus.

D1	MWF	11	210	BESS	

Physics 341. Electricity and Magnetism. Credit 4 hours. Lectures, problems, and laboratory. This course is fundamental to advanced courses and should be elected as early as possible by those intending to specialize in physics. Fundamental laws logically developed and summarized in Maxwell's equations. Forces and energies associated with electric and magnetic properties of matter. Generation and propagation of electromagnetic waves. Prerequisite: General Physics and Calculus; Registration in Math. 341, 343 or 345.

QUIZ	G1	MWF	2	210	CHANDLER
LAB	G	TH	3/6	210	CHANDLER

Physics 360. Thermodynamics. Credit 3 hours. The first, second. and third laws of thermodynamics; the properties of the entropy, enthalpy, free energy, and internal energy functions; reversible and irreversible processes; applications to homogeneous and hetrogeneous systems: chemical reactions and the mass action law. Prerequisite: General Physics and Calculus.

QUIZ	C1	MWF	10	210	WEISSMAN

POLITICAL SCIENCE

Pol. Sci. 150. American Government: Organization and Powers. Credit 3 hours. Historical development and organization of national, state, and local governments; the federal system; national and state constitutions; civil and political rights; party system; nature, structure, powers, and procedures of legislative, executive, and judicial departments in state and nation. Prerequisite: Sophomore standing.

A1	MWF	8	14	RAKOVE
F1	MWF	1	21	RAKOVE
L10	TTF	8	16	
M10	TT	9	21	
	F	9	13	
P10	TTF	11	13	BARBER
R10	TTF	1	28	BARBER
T10	TTF	3	38	BARBER

Pol. Sci. 151. American Government: Functions. Credit 3 hours. Functions of national, state, and local governments; foreign relations and national defense; taxation and finance; law enforcement; police power, regulation of commerce, communications, and business; promotion of social and economic welfare; current problems. Prerequisite: Sophomore standing; Political Science 150 or consent of the department.

B1	MWF	9	94	RAKOVE
D1	MW	11	20	RAKOVE
	F	11	38	

Pol. Sci. 384. International Relations. Credit 3 hours. An examination of the nature of the national state system, of the forces affecting international relations, of the sources of conflicts in international politics, and of their solution. Prerequisite: Six hours of political science.

N10	TT	10	21	BARBER
	F	10	14	

PSYCHOLOGY

Psych. 100. Introduction to Psychology. Credit 4 hours. Introductory analysis and description of human behavior with special reference to observation, learning, memory, thinking, emotional life, and personality development. Major emphasis is placed upon psychological principles as they relate to daily life and everyday problems. Prerequisite: Second semester freshman standing.

Lecture and quiz sections in this course are coordinate. Quiz section must be chosen from the group listed directly under the particular lecture section selected.

LEC	D1	MW	11	205	V LIPMAN
QUIZ	F1	MW	1	37	V LIPMAN
QUIZ	H2	MW	3	37	V LIPMAN
QUIZ	P2	TT	11	24	V LIPMAN
QUIZ	Q3	TT	12	24	V LIPMAN
QUIZ	T2	TT	3	14	V LIPMAN

LEC	E1	WF	12	205	HOWARD
QUIZ	C1	WF	10	38	HOWARD
QUIZ	G1	WF	2	37	HOWARD
QUIZ	L1	TT	8	14	
QUIZ	M1	TT	9	23	HOWARD
QUIZ	N1	TT	10	23	HOWARD
QUIZ	Q1	TT	12	23	HOWARD
LEC	Q1	TT	12	205	E LIPMAN
QUIZ	E1	WF	12	17	
QUIZ	H1	WF	3	20	SHALABI
QUIZ	Q2	TT	12	21	
QUIZ	P1	TT	11	14	
QUIZ	R1	TT	1	23	
QUIZ	T1	TT	3	23	SHALABI

Psych. 125. An Introduction to the Fields of Psychology. Credit 4 hours. An introduction to the basic fields of psychology, including the history of psychology, developmental psychology with an emphasis on the socialization of the child, individual differences, industrial, social, abnormal, and physiological psychology. Students taking this course may not take Psychology 220 at the Urbana campus for credit. Prerequisite: Psychology 100, or equivalent, or junior standing.

LEC	D1	WF	11	227	E LIPMAN
QUIZ	M1	TT	9	24	
QUIZ	N1	TT	10	24	
QUIZ	P1	TT	11	23	

RHETORIC

Rhetoric 101. Freshman Rhetoric and Composition. Credit 3 hours. This course provides elementary training and practice in the comprehension and expression of written English. Students with 95 or more credit hours receive only 2 hours credit.

A1	MWF	8	208	HUNT
A2	MWF	8	223	FRIEND
A3	MWF	8	226	STAR
A4	MWF	8	229	PECK

B1	MWF	9	208	CHILLAG
B2	MWF	9	223	FRIEND
B3	MWF	9	229	LOVE
B4	MWF	9	231	I MILLER
B5	MWF	9	234	PECK
B6	MWF	9	235	STAR
C1	MWF	10	223	ATWOOD
C2	MWF	10	229	CHILLAG
C3	MWF	10	231	KERWICK
C4	MWF	10	234	WILLETT
C5	MWF	10	235	F JOHNSON
D1	MWF	11	223	LAWSON
D2	MWF	11	229	KERWICK
D3	MWF	11	231	LOVE
D4	MWF	11	234	I MILLER
D5	MWF	11	235	HEGIE
D6	M	11	237	FRIEND
	W	11	218	
	F	11	206	
D7	MWF	11	96	
E1	MWF	12	223	WILLETT
E2	MWF	12	229	COX
E3	MWF	12	231	LOVE
E4	MWF	12	234	HARRIS
E5	MWF	12	235	STAR
E6	MWF	12	237	
E7	M	12	233	DODD
	WF	12	218	
E8	MWF	12	96	

F1	MWF	1	223	CHILLAG
F2	MWF	1	229	I MILLER
F3	MWF	1	231	PECK
F4	MWF	1	234	SIDNEY
F5	MWF	1	235	F JOHNSON
F6	MWF	1	96	J JOHNSON
F7	M	1	237	HUNT
	W	1	236	
	F	1	206	
G1	MWF	2	214	J JOHNSON
G2	MWF	2	216	KERWICK
G3	MWF	2	223	HEGIE
G4	MWF	2	228	LAWSON
G5	MWF	2	229	ATWOOD
G6	MWF	2	230	SIDNEY
G7	MWF	2	231	
G8	MWF	2	232	
G9	MWF	2	233	RUDIN
G10	MWF	2	212	DODD
H1	MWF	3	208	HEGIE
H2	MWF	3	223	
H3	MWF	3	229	RUDIN
H4	MWF	3	231	HARRIS
H5	MWF	3	234	
H6	MWF	3	96	
H7	MWF	3	237	COX
J1	MWF	4	204	
J2	MWF	4	208	
J3	MWF	4	212	RUDIN

J4	MWF	4	220	LAWSON
J5	MWF	4	229	HARRIS
J6	MWF	4	231	DODD
J7	MWF	4	234	COX
J8	MWF	4	116	HEGIE
J9	MWF	4	96	
L1	MTT	8	231	LEONHARD
L2	MTT	8	234	MACKIN
L3	MTT	8	237	S MILLER
L4	M	8	212	NICHOLAS
	TT	8	208	
L5	M	8	214	
	TT	8	202	
M1	M	9	206	GALLAGHER
	TT	9	223	
M2	M	9	212	LEONHARD
	TT	9	229	
M3	M	9	228	MACKIN
	TT	9	231	
M4	M	9	230	NICHOLAS
	TT	9	234	
M5	M	9	236	
	TT	9	235	
N1	MTT	10	212	BLUM
N2	M	10	228	JACKMAN
	TT	10	223	
N3	M	10	230	MACKIN
	TT	10	229	

N4	M	10	232	S MILLER
	TT	10	234	
N5	M	10	236	RUNYAN
	TT	10	235	
N6	M	10	116	SCHILLER
	TT	10	231	
P1	M	11	228	GALLAGHER
	TT	11	223	
P2	M	11	230	
	TT	11	229	
P3	M	11	232	CARLSON
	TT	11	231	
P4	M	11	233	
	TT	11	234	
P5	M	11	236	KARANIKAS
	TT	11	235	
P6	M	11	216	GRIEST
	TT	11	204	
Q1	M	12	212	BLUM
	TT	12	223	
Q2	M	12	228	TERRILL
	TT	12	229	
Q3	M	12	230	RUNYAN
	TT	12	231	
Q4	M	12	232	CARLSON
	TT	12	234	
Q5	M	12	236	LEONHARD
	TT	12	235	

Q6	M	12	80	
	TT	12	237	
R1	M	1	228	NICHOLAS
	TT	1	223	
R2	M	1	230	GRIEST
	TT	1	229	
R3	M	1	232	S MILLER
	TT	1	234	
R4	M	1	233	GALLAGHER
	TT	1	231	
R5	M	1	236	
	TT	1	235	
T1	M	3	212	SCHILLER
	TT	3	223	
T2	M	3	222	KARANIKAS
	TT	3	229	
T3	M	3	228	LERNER
	TT	3	231	
T4	M	3	230	
	TT	3	234	
T5	M	3	236	
	TT	3	235	
U1	MTT	4	222	KARANIKAS
U2	MTT	4	223	LERNER
U3	MTT	4	235	GRIEST
U4	MTT	4	237	
U5	M	4	228	
	TT	4	204	

Rhetoric 102. Freshman Rhetoric and Composition. Credit 3 hours. This course provides elementary training and practice in the comprehension and expression of written English. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Rhetoric 101.

A1	MWF	8	202	DAVIS
B1	MWF	9	202	VEST
B2	MWF	9	204	SIDNEY
B3	MWF	9	96	HUNT
C1	MWF	10	202	DAVIS
C2	MWF	10	204	SIDNEY
C3	MWF	10	96	HUNT
D1	MWF	11	202	STAR
D2	MWF	11	204	PECK
E1	MWF	12	202	DAVIS
E2	MWF	12	204	CASSELL
F1	MWF	1	202	ATWOOD
F2	MWF	1	204	WEISS
G1	MWF	2	202	CASSELL
G2	MWF	2	204	
H1	MWF	3	202	LAWSON
H2	MWF	3	204	WEISS
J1	MWF	4	202	CASSELL
L1	MTT	8	204	TERRILL
M1	M	9	214	WRIGHT
	TT	9	202	
M2	M	9	216	TERRILL
	TT	9	204	
N1	M	10	214	KOGAN
	TT	10	202	
N2	M	10	216	TERRILL
	TT	10	204	

P1	M	11	214	JORDAN
	TT	11	202	
Q1	M	12	214	WRIGHT
	TT	12	202	
Q2	M	12	216	
	TT	12	204	
R1	M	1	214	JORDAN
	TT	1	202	
R2	M	1	216	KOGAN
	TT	1	204	
T1	M	3	214	CARLSON
	TT	3	202	
U1	M	4	214	CARLSON
	TT	4	202	

Rhetoric 103. English as a Foreign Language. No credit. An intensive review course in basic English structure for foreign students who are inadequately prepared for Rhetoric 101. Prerequisite: Reading knowledge of English and ability to understand instructions.

Q10	TT	12	208	KIRSTEIN
	W	12	116	
	F	12	206	
H1	MW	3	235	DODD
	TT	3	208	

Rhetoric 104. English as a Foreign Language. No credit. A continuation of Rhetoric 103. A rapid and intensive review of basic English structure and a study of more complicated sentence patterns with practice in oral and written composition, designed for students who may be inadequately prepared for Rhetoric 101. Prerequisite: Rhetoric 103 or consent of instructor.

M10	TT	9	208	KIRSTEIN
	F	9	237	

Rhetoric 105. English as a Foreign Language. No credit. Intensive writing practice, designed to remedy the foreign student's problems in the area of his special difficulties. May be taken concurrently with Rhetoric 101. Prerequisite: Rhetoric 104 or consent of instructor.

N1	TT	10	208	KIRSTEIN

Rhetoric 143. Intermediate Expository Writing. Credit 3 hours. Practice in expository types, with emphasis on style and critical analysis. Recommended for rhetoric majors. Credit is not given for Rhetoric 143 in addition to Rhetoric 133. Prerequisite: a grade of "A" or "B" in Rhetoric 102 or consent of instructor.

E1	MWF	12	208	RUDIN

Rhetoric 151. Business Letter Writing. Credit 3 hours. Study of the correspondent's problems in business and practice in writing letters, with emphasis on organization, persuasion, and presentation from the reader's point of view. For the student whose career will require competence in writing letters. Prerequisite: Rhetoric 101 and 102.

C1	MWF	10	208	OLEKSY
D1	MWF	11	208	OLEKSY
F1	MWF	1	208	OLEKSY
G1	MWF	2	208	OLEKSY
P1	M	11	212	LERNER
	TT	11	208	
R1	M	1	212	LERNER
	TT	1	208	

SOCIAL SCIENCES

Soc. Sci. 111. The Individual in Society. Credit 4 hours. A general education course designed to equip the beginning student with an understanding of the nature and the role of the individual as a member of the several groupings of his social community. Credit is not given for this course to a student with credit, or concurrent registration, in a course in anthropology, psychology, or sociology. Students with 95 or more credit hours receive only 3 hours credit.

LEC	G1	MW	2	213	PINTO
QUIZ	B1	WF	9	14	BLUM
QUIZ	H1	MW	3	94	PINTO
QUIZ	L1	TT	8	96	BLUM
QUIZ	M1	TT	9	94	BLUM
QUIZ	P1	TT	11	19	WARREN

Soc. Sci. 113. World Patterns and World Problems. Credit 4 hours. A general education course designed to bring the student to an understanding of the geographic, economic, an political bases of the present world situation. Students with 95 or more credit hours receive only 3 hours credit.

LEC	E1	M	12	227	COLBY
QUIZ	F1	M	1	14	CUTSHALL
		WF	1	13	
QUIZ	G1	MWF	2	13	CUTSHALL
QUIZ	M1	MTT	9	14	COLBY
QUIZ	Q1	TTF	12	14	COLBY

Soc. Sci. 116. Family Living. Credit 4 hours. The development of the family from early to modern times. The factors involved in the establishment and maintenance of a family. Opportunities for individual counseling. Prerequisite: Sophomore standing or consent of instructor.

QUIZ	F1	TT	1	24	E LIPMAN
		WF	1	38	

SOCIOLOGY

Sociol. 100. Introduction to Sociology. Credit 3 hours. Introductory analysis and description of the structure and dynamics of human society. Special emphasis is placed on the application of scientific methods to the observation and analysis of social norms, groups, intergroup relations, social change, social stratification. Prerequisite: Sophomore standing.

A1	MWF	8	17	CORLEY
C1	MW	10	28	KLASSEN
	F	10	37	
G1	MWF	2	28	KLASSEN
H1	MWF	3	13	KLASSEN
L1	MTT	8	19	

Sociol. 130. Society and Individual Development. Credit 3 hours. Nature of person and relation to institutions, social order, and development. Prerequisite: Sociology 100.

B1	MW	9	37	CORLEY
	F	9	19	

Sociol. 276. Sociology of the City. Credit 3 hours. Study of urban structure and ecology, particularly in light of the planning movement and the urban populations; growth and development of urban communities. Prerequisite: Sociology 100, or 104 and 105, or Division of General Studies 151 and 152; junior standing.

E1	MWF	12	251	KLASSEN
E2	MW	12	37	CORLEY
	F	12	38	

SPANISH

Spanish 101. Elementary Spanish. Credit 4 hours. For students who have no credit in Spanish. Students with 95 or more credit hours receive only 3 hours credit. No credit toward graduation is given for Spanish 101 without 102.

A1	TWTF	8	228	TORT
B1	TWTF	9	233	SANCHEZ
D1	TWTF	11	212	OLSEN
D2	TT	11	224	MARSH
	WF	11	237	
E1	TWTF	12	228	TORT
F1	TT	1	221	OLSEN
	WF	1	233	
H1	TWTF	3	233	
J1	TWTF	4	233	

Spanish 102. Elementary Spanish. Credit 4 hours. Continuation of Spanish 101. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Spanish 101 or one year of high school Spanish.

D1	TWTF	11	228	
H1	TWTF	3	228	MARSH

Spanish 103. Intermediate Spanish. Credit 4 hours. Rapid reading, review of grammar, composition, conversation. Prerequisite: Spanish 102 or two years of high school Spanish.

B1	TWTF	9	228	TORT
C1	TWTF	10	228	TORT
E1	TWTF	12	233	
F1	TWTF	1	228	MARSH
J1	TWTF	4	228	OLSEN

Spanish 104. Intermediate Spanish. Credit 4 hours. Continuation of Spanish 103. Prerequisite: Spanish 103 or three years of high school Spanish.

C1	TWTF	10	233	SANCHEZ
E1	TWTF	12	212	MARSH
H1	TWTF	3	212	OLSEN

Spanish 113. Elementary Composition and Conversation. Credit 2 hours. Conducted largely in Spanish. May be taken concurrently with Spanish 103. Does not count toward the major in Spanish. Prerequisite: Spanish 102 or two years of high school Spanish.

R1	TT	1	233	SANCHEZ

Spanish 201. Introduction to Spanish Literature. Credit 3 hours. Reading of representative authors of Spain. Prerequisite: Spanish 104 or four years of high school Spanish.

P10	TTF	11	233	SANCHEZ

Group Remedial Speech. No credit. Students with articulatory problems, particularly those with foreign dialects, may register for this course at the Student Counseling Service, Room 303.

D1	MW	11	300	

Speech 101. Principles of Effective Speaking. Credit 3 hours. Preparation and presentation of short informative and persuasive speeches, with emphasis on the selection and organization of material, methods of securing interest and attention, and the elements of delivery. Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit.

A1	MWF	8	224	PITT
B1	MWF	9	226	HOSKINS
C1	MWF	10	224	
D1	MWF	11	226	PITT
F1	MWF	1	224	
G1	MWF	2	226	
H1	MWF	3	226	CREWS
H2	MWF	3	224	KUNDRAT
J1	MWF	4	226	CREWS
J2	MWF	4	224	KUNDRAT
M1	M	9	116	THOMPSON
	TT	9	226	
M10	TT	9	224	KUNDRAT
	F	9	116	
N1	M	10	206	CREWS
	TT	10	226	
N10	TTF	10	116	HOVDE
P1	MTT	11	116	GOULSON
P10	TT	11	226	CREWS
	F	11	116	
Q1	M	12	116	GOULSON
	TT	12	224	
Q10	TTF	12	116	HOVDE
Q11	TT	12	96	PITT
	F	12	28	

R1	M	1	116	PITT
	TT	1	226	
R10	TTF	1	116	HOVDE
T10	TTF	3	116	HOVDE

Speech 103. Speech for Foreign Students. No credit. A study of the sounds and intonation patterns of American English and the relation of sound to spelling, including drill sessions designed to improve the student's ability to speak and understand English at normal conversational speed. Prerequisite: Reading knowledge of English and ability to understand instructions.

D1	MWF	11	224	HOSKINS
	TH	3/5	226	

Speech 104. Speech for Foreign Students. No credit. Pronunciation of English for students whose native language is not English. A study of the sounds and intonation patterns of American English, designed to improve the student's ability to speak at a normal conversational speed. Course deals with material in pronunciation similar to Speech 103 but is designed for more advanced students. Prerequisite: Speech 103 or consent of the instructor.

F1	MWF	1	226	HOSKINS

Speech 105. Voice and Articulation. Credit 2 hours. A drill course for the improvement of the normal speaking voice. Credit 2 hours. Students with 95 or more credit hours receive only 1 hour credit.

C1	MWF	10	226	HOSKINS
G1	MWF	2	224	KUNDRAT

Speech 107. Parliamentary Procedure. Credit 2 hours. Principles and practice of parliamentary procedure. Students with 95 or more credit hours receive only 1 hour credit.

M1	TT	9	116	HOVDE

Speech 111. Business and Professional Speaking. Credit 2 hours. Study, preparation, and presentation of the chief types of business speeches, with special attention to conferences, sales talks, interviews, job applications. Credit 2 hours. Prerequisite: Speech 101; sophomore standing.

Q1	TT	12	226	THOMPSON

Speech 121. Advanced Public Speaking: The Logical Bases of Discourse. Credit 3 hours. The theory of argument (evidence, reasoning, construction of briefs); practice in formal and informal debate and public discourse on current public questions. Prerequisite: Speech 101; sophomore standing.

E1	MWF	12	224	

Speech 141. Oral Interpretation of Literature. Credit 3 hours. Principles of interpretation, analysis, and oral reading of prose literature, dramatic literature, and verse. Students with 95 or more credit hours receive only 2 hours credit.

E1	MWF	12	226	CREWS
N10	TT	10	224	KUNDRAT
	F	10	212	

Speech 161. Fundamentals of Acting. Credit 3 hours. A study of the methods of acting, with emphasis given to basic stage techniques. The role of the character in relation to the play as a whole; the intellectual and emotional values of the play and their interpretation by means of voice and action. Prerequisite: Credit or concurrent registration in Speech 141.

R1	M	1	218	GOULSON
	TT	1	224	

Speech 221. Advanced Public Speaking: The Psychological Bases of Discourse. Credit 3 hours. A study of the processes of motivation as applied to speeches intended to influence group opinion and action; practice in the preparation and delivery of short persuasive speeches. Prerequisite: Speech 101; junior standing.

B1	MWF	9	224	PITT

STUDENT COUNSELING SERVICE

Reading Improvement. No credit. For students who wish to increase their rate of reading or improve their vocabulary and comprehension skills.

R1	MW	10	300	STAFF
R2	MW	11	300	STAFF
R3	MW	1	300	STAFF
R4	TT	10	300	STAFF
R5	TT	11	300	STAFF

Study Skills Improvement. No credit. For students who need to develop more effective methods of study. Practice in studying reference materials competently, improving concentration, taking meaningful notes, and preparing for examinations.

* Sections open to new students only.

*	S1	MW	10	300	STAFF
	S2	MW	11	300	STAFF
*	S3	MW	1	300	STAFF
	S4	MW	2	300	STAFF
	S5	TT	10	300	STAFF
*	S6	TT	11	300	STAFF
	S7	TT	1	300	STAFF

Vocabulary Development. No credit. For students who need assistance in the development of language skills. Discussions on use of vocabulary in thinking and communication. Exercises in vocabulary building.

V1	MW	11	300	STAFF

Career Planning. No credit. For students who want to clarify their vocational goals. Focuses on self-evaluation of abilities, interests, and personal needs as bearing on occupational choice.

C1	M	2	300	STAFF
C2	TU	1	300	STAFF

THEORETICAL AND APPLIED MECHANICS

T. A. M. 150. Analytical Mechanics (Statics). Credit 2 hours. Resultants of force systems, algebraic and graphical condition of equilibrium for force systems, graphic states, forces acting on members of trusses, frames, etc. Forces due to friction. Centroids. Prerequisite: Registration in Mathematics 143; Physics 106.

Q1	TT	12	110

T. A. M. 151. Analytical Mechanics (Statics). Credit 3 hours. Resultants of force systems, algebraic and graphical condition of equilibrium for force systems, graphic statics, moment diagrams, virtual work, forces due to friction centroid. Prerequisite: Registration in Mathematics 143; Physics 106.

D1	MWF	11	110
J1	MWF	4	110

T. A. M. 154. Analytical Mechanics (Statics and Dynamics). Credit 4 hours. A combination of Theoretical and Applied Mechanics 150 and 211 with less emphasis on some topics. For electrical engineering students only. Prerequisite: Registration in Mathematics 143; Physics 106.

C1	MWTF	10	113
H1	MTWF	3	110

T. A. M. 156. Analytical Mechanics (Statics and Dynamics). Credit 5 hours. A combination of Theoretical and Applied Mechanics 150 and 211. Prerequisite: Registration in Mathematics 143; Physics 106.

E1	MTWTF	12	113

T. A. M. 171. Elements of Mechanics (Statics). Credit 3 hours. Resultants and equilibrium of force systems; conditions of equilibrium appiled to trusses, frames, etc.; forces due to friction; centroids; stress and deformation in direct tension and compression; riveted and welded joints; properties of materials. For architects only. Prerequisite: Mathematics 123.

G1	MWF	2	113

T. A. M. 172. Strength of Materials. Credit 3 hours. Relationships between external forces acting on beams and the stresses produced, shear, moment, slope and deflection diagrams, moment of inertia; columns. For architects only. Prerequisite: Theoretical and Applied Mechanics 171.

G1	MWF	2	134

T. A. M. 211. Analytical Mechanics (Dynamics). Credit 3 hours. Displacement, velocity, and acceleration of a particle; relation between forces acting on rigid bodies and the changes in motion produced; translation, rotation; plane motion; solutions using the principles of force, mass, and acceleration, work and energy, impulse and momentum. Prerequisite: Theoretical and Applied Mechanics 150 or 151.

C1	MWF	10	110
F1	MWF	1	110

T. A. M. 221. Elementary Mechanics of Deformable Bodies. Credit 3 hours. Relationships between external forces acting on elastic bodies and the stresses and deformations produced; tension and compression members; members subjected to torsion and to bending; columns; combined stresses; properties of materials. Prerequisite: Theoretical and Applied Mechanics 150, 151, 154 or 156.

A1	MWF	8	110
H1	MWF	3	113

T. A. M. 223. Mechanical Behavior of Solids. Credit 1 hour. Tests of steel, cast iron, aluminum alloys, concrete and wood; determination of such mechanical properties as strength, hardness, ductility, energy, resistance; engineering significance of mechanical properties. Prerequisite: Credit or registration in Theoretical and Applied Mechanics 221.

A	TU	8/10	61
B	TH	10/12	61
D	TH	3/5	61

T. A. M. 224 Behavior of Materials. Credit 3 hours. Introduction to atomic and molecular structure of metals, cement, concrete, plastics, ceramics, and glass; response of these materials to rapid, steady, and repeated loads at various temperatures (and environments) in terms of rheological models; fracture behavior of specific materials, i.e., stress rupture, brittle fracture, and fatigue of metals and concrete. Prerequisite: Theoretical and Applied Mechanics 221.

C1	MWF	10	65

STUDENT'S COPY OF REGISTRATION

I. D. Number_____ College_____

NAME:_____

SUBJECT	Course No.	Cr. Hrs.	Section

		MON.		TUES.		WED.		THURS.		FRI.	
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STUDENT'S COPY OF REGISTRATION

I. D. Number_____ College_____

NAME:_____

SUBJECT	Course No.	Cr. Hrs.	Section

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I. D. Number_____ College_____

NAME:_____

SUBJECT	Course No.	Cr. Hrs.	Section

	TIME	MON. Course	MON. Rm.	TUES. Course	TUES. Rm.	WED. Course	WED. Rm.	THURS. Course	THURS. Rm.	FRI. Course	FRI. Rm.
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I. D. Number_____ College_____

NAME:_____

SUBJECT	Course No.	Cr. Hrs.	Section

	TIME	MON. Course	MON. Rm.	TUES. Course	TUES. Rm.	WED. Course	WED. Rm.	THURS. Course	THURS. Rm.	FRI. Course	FRI. Rm.
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